Spring 2002

UNCED's Uncertain Legacy: An Introduction to the Issue

Paul Stanton Kibel
Golden Gate University School of Law, pkibel@ggu.edu

UNCED'S UNCERTAIN LEGACY: AN INTRODUCTION TO THE ISSUE

PAUL STANTON KIBEL*

In the summer of 1992, Rio De Janeiro, Brazil hosted the United Nations Conference on Environment and Development ("UNCED"). UNCED, or the Earth Summit as it came to be known, is acknowledged as a watershed event in the history of global environmental politics and international environmental law. The particular historical significance of the event, however, remains a point of great contention. There are some who view UNCED as evidence of the international community's willingness to acknowledge and forge effective responses to the planet's environmental problems. There are others who perceive the event as evidence of the opposite, of the international community's fundamental failure to acknowledge the causes, magnitude or consequences of global environmental decline.

One way to make sense of these disparate views of the Earth Summit is to focus in on the concept of "sustainable development." This concept existed before the summer of 1992. It had been introduced and promoted in previous publications such as the International Union for the Conservation of Nature's *World Conservation Strategy* (1980), Lester R. Brown's *Building a Sustainable Society* (1981) and the World Commission on Environment and Development's *Our Common Future* (1987).[1] Although the term was in intellectual circulation in

* Paul Stanton Kibel is an Adjunct Professor at Golden Gate University School of Law, and Faculty Editor for the Golden Gate Environmental Law Journal. He is also an environmental attorney with Fitzgerald, Abbott & Beardsley, and the author of THE EARTH ON TRIAL: ENVIRONMENTAL LAW ON THE INTERNATIONAL STAGE (Routledge Press), which was nominated for the International Studies Association's Sprout Award in 1999. He holds an LL.M. from Berkeley's Boalt Hall Law School.

[1] Donald Worster, *The Shaky Ground of Sustainability*, *in* DEEP ECOLOGY FOR THE

the 1980s, UNCED represented the first embrace of the concept of sustainable development at the level of global diplomacy and international law. This embrace can be confirmed by reviewing the agreements signed at the Earth Summit, such as Agenda 21,[2] the Statement of Forest Principles[3] and the Rio Declaration on Environment and Development.[4] In Agenda 21, the term sustainable development appears 24 times. The phrase is used 11 times in the Statement of Forest Principles. In the Rio Declaration on Environment and Development, it is mentioned seven times.

The debate over the historical significance of UNCED is in large part a debate over the meaning of the concept of sustainable development. It is a term that suggests the need to balance environmental priorities with economic development priorities, and the need to conduct economic development activities in a manner that does not jeopardize the interests of future generations.

For those who view UNCED as a positive historical development, there is an endorsement of the concept of sustainable development. This endorsement is critical to their assessment of the Earth Summit and the decade since the event. For these people, the problem is not the inadequacy of the conceptual underpinnings of the treaties negotiated at Rio, but rather the failure of the international community to develop and implement policies that reflect these conceptual underpinnings. For instance, in the summer of 2002 Johannesburg, South Africa will host the World Summit on Sustainable Development ("WSSD"), which is being billed by the United Nations as

---

TWENTY-FIRST CENTURY 417, 418 (Shambhala 1995) [hereinafter Worster]; GARETH PORTER & JANET WELSH BROWN, GLOBAL ENVIRONMENTAL POLITICS 25 (Westview Press 1996); *Our Common Future*, discussed in the accompanying text, is often referred to as the Brundtland Report, after the commission's chair, Norwegian Prime Pinister Gro Harlem Brundtland.

[2] Agenda 21. Adopted at the U.N. Conference on Environment and Development (UNCED) at Rio de Janeiro, 13 June 1991. U.N. Doc. A/CONF. 151/26 (Vol. I, II, & III): Table of Contents & Chs. 5, 15, 17, 20, 33.

[3] Non-Legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests. Adopted at the U.N. Conference on Environment and Development (UNCED) at Rio de Janeiro, 13 June 1992. U.N. Doc. A/CONF. 151/26 (Vol. III)(1992), 31 I.L.M. 881 (1992).

[4] Rio Declaration on Environment and Development, Adopted at the U.N. Conference on Environment and Development (UNCED) at Rio de Janeiro, 13 June 1991. U.N. Doc. A/CONF. 151/26 (Vol. I), 31 I.L.M. 874 (1992).

"Rio+10". Non-government organizations ("NGOs") were invited by the United Nations Commission on Sustainable Development to submit comments on the upcoming WSSD. In response to this invitation, in January 2002 a coalition of European and developing nation NGOs submitted the following comments:

> The UNCED process generated unprecedented levels of awareness around environmental issues, and the link between the environment and development. There were high hopes and commitments to achieve the integration of environment and development in a new North-South partnership...However, almost 10 years after Rio, the sustainable development agenda has failed to be implemented...The nexus between environment and development that was affirmed in Rio has been weakened, if not broken, in policy and political terms.[5]

According to these comments, the challenge before us is to return and recommit to the principle of sustainable development articulated at the Earth Summit.

There are others, however, who maintain that the embrace of sustainable development at UNCED explains why there has been such little progress on the international environmental front over the past decade. As Donald Worster, professor of environmental history at the University of Kansas, explains:

> Like most popular slogans, sustainable development begins to wear thin after a while. Although it seems to have gained a wide acceptance, it has done so by sacrificing real substance. Worse yet the slogan may turn out to be irredeemable for environmentalists' use because it may inescapably compel us to adopt a narrow economic language, standard of judgments, and world view in approaching and utilizing the earth...I find the following deep flaws in the sustainable development ideal. First, it is based on the view that the natural world exists primarily to serve the material demands of the human species. Nature is nothing more than a pool of 'resources' to be exploited; it has no intrinsic meaning or value apart from the

---

[5] *Dialogue Paper by Non-Governmental Organization*, Jan. 28, 2002, prepared jointly by the Third World Network, the Environmental Liaison Centre International, the Danish 92 groups and the Northern Alliance for Sustainability for the United Nations Commission on Sustainable Development acting as the Preparatory Committee for the World Summit on Sustainable Development.

> goods and services it furnishes people, rich or poor. The Brundtland Report makes this point clear on every page: the "our" in its title refers to people exclusively, and the only moral issue it raises is the need to share what natural resources there are more equitably among our kind, among the present world population and among generations to come. That is not by any means an unworthy goal, but it is not adequate to the challenge.[6]

According to Worster, UNCED's acceptance of sustainable development as a sufficient policy objective and moral basis has diluted both the language and the substance of global environmental protection efforts.

The debate over the meaning of sustainable development lies at the core of this special symposium edition of the Golden Gate Environmental Law Journal, entitled *Rio's Decade: Reassessing the 1992 Earth Summit.* This edition examines the substance and implementation of the international agreements that were negotiated at UNCED. There are three sets of articles in the edition, each focusing on a particular Earth Summit treaty.

The first set of articles focuses on the 1992 United Nations Framework Convention on Climate Change. The lead article in this set, co-authored by Nuno Lacasta and Eva Powroslo of the Center for International Environmental Law and Suraje Dessai of EURONATURA, explores the complex evolution of the European Union's climate change policy over the past decade.[7] Next, the United States' climate change policy under President William Clinton is reviewed by Amy Royden, a former attorney with the Clinton Administration's State Department and Energy Department. In the last piece, Professor Armin Rosencranz of Stanford University considers the climate change policies advanced so far by President George W. Bush.

The second set of articles assesses the 1992 Convention on Biological Diversity ("Biodiversity Convention"). First, Professor Robert Blomquist of Valaparaiso University School of Law deconstructs the domestic political dynamics that have to date prevented the United States from ratifying the treaty. Next,

---

[6] Worster, *supra* note 1, at 418-424.

[7] Since this article was completed, Nuno Lacasta has accepted a position in Lisbon with the Government of Portugal's Environment Ministry.

Shalini Bhutani of the Research Foundation for Science, Technology & Ecology and Ashish Kothai of Kalpavritsch assess the international debate over biodiversity rights from the vantage point of developing nations such as India.

The final set of articles evaluates the 1992 Statement of Forest Principles. The lead article, by attorney Melanie Steiner of the World Wildlife Fund-Canada, chronicles the development of international forest policy since UNCED and in particular the prospects for the recently launched United Nations Forum on Forests. In the second piece, Godber Tumushabe, attorney and Executive Director for the Uganda-based Advocates Coalition for Development and Environment, evaluates the efforts of Kenya, Uganda and Tanzania to translate the Statement of Forest Principles into improved national forest conservation policies.

The articles in this special *Rio's Decade* symposium invite us to take a critical look at whether the agreements negotiated at UNCED are obstacles or opportunities to halting global environmental decline and the worldwide abuse of natural resources. This backward assessment is essential to deciphering how to best move forward.

ARTICLE

CONSENSUS AMONG MANY VOICES: ARTICULATING THE EUROPEAN UNION'S POSITION ON CLIMATE CHANGE

NUNO S. LACASTA, SURAJE DESSAI & EVA POWROSLO*

I. INTRODUCTION

"We all recognize that climate change is one of the most threatening issues that we are facing today... We cannot negotiate with the Climate! We need to take action, now." – Margot Wallström, European Commissioner for Environment[1]

"Europe is resolved to act and has mobilized to fight the greenhouse effect." – Jacques Chirac, French President

---

* *Nuno S. Lacasta* is Senior Adviser for International Affairs at the Portuguese Ministry for the Environment, and Visiting Professor of Comparative Environmental Law at the American University's Washington College of Law (WCL/AU). At the time of this writing he was European Of Counsel at the Center for International Environmental Law (CIEL-Washington, DC) and Senior Fellow for EURONATURA-Centre for Environmental Policy and Sustainable Development (Lisbon, Portugal). He holds a Bachelor of Laws degree from Lisbon University's Law School and a LL.M from WCL/AU. *Suraje Dessai* is a PhD candidate at the Tyndall Centre for Climate Change Research, UK, and Associate Researcher with EURONATURA. He holds a degree in Environmental Sciences from the University of East Anglia, UK. *Eva Powroslo* is a lawyer in Germany. She holds a Bachelor of Laws degree from the University of Cologne and a LL.M from the School of Oriental and African Studies, University of London, UK. She was a Law Fellow with CIEL in the fall of 2001. The authors would like to thank Sebastian Oberthür, Glenn Wiser, Paul Kibel, and João Gonçalves for reviewing this article. Any errors or omissions are, however, the authors' full responsibility.

[1] Speech by European Environment Commissioner, Margot Wallström, Environment European Climate Change Program: A Successful Approach to Combating Climate Change, ECCP Conference Brussels, 2 July 2001. Available at: http://www.europa.eu.int/rapid/start/cgi/guesten.ksh?p_action.gettxt=gt&doc=SPEECH/01/322|0|RAPID&lg=EN (visited Dec. 6, 2001).

". . . [C]limate change is already upon us. But it can get much worse if we fail to act." – John Prescott, UK Deputy Prime Minister

"The fight against the greenhouse [effect] cannot be delayed." – Jürgen Trittin, German Environment Minister

As the above statements[2] from European leaders attest, the issue of climate change ranks high on the continent's political agenda. In fact, the European Union (EU)[3] and its Member States have for over a decade claimed domestic and international leadership with regard to the challenge of global warming.[4] The EU has historically supported both the 1992 United Nations Framework Convention on Climate Change (UNFCCC),[5] as well as its 1997 Kyoto Protocol.[6] After the United States withdrawal from the latter in mid 2001,[7] the EU

---

[2] The last three statements presented were made in 2000 at Sixth Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC), which took place in The Hague from November 13-25, 2000. *See* list of statements, *in* U.N. Doc. FCCC/CP/2000/5/Add.1, at 25-26. Available at: http://unfccc.int/rsource/cop6.html (visited January 10, 2001).

[3] The European Union (EU), established by the 1992 Treaty on European Union (also known as Maastricht Treaty), *available at* <http://www.europa.eu.int/eurlex/en/treaties/dat/eu_cons_treaty_en.pdf> (visited Dec. 11, 2001), consists of three pillars: the European Communities (European Community [EC], European Coal and Steel Community and European Atomic Energy Community); the Common Foreign and Security Policy; and co-operation in home affairs and justice policy. Although the use of terms may sometimes be incorrect as a strict legal matter (*see* for a detailed explanation of this terminology Nigel Haigh, *Climate Change Policies and Politics in the European Community, in* POLITICS OF CLIMATE CHANGE: A EUROPEAN PERSPECTIVE (Tim O'Riordan & Jill Jäger eds., 1996 [hereinafter O'RIORDAN & JÄGER] 155-156 [hereinafter Haigh]), following common practice in the context of climate negotiations, the term "EU" will be used consistently, without distinction as to which entity, the EU or the EC, acts in the specific circumstances (*cf.* SEBASTIAN OBERTHÜR & HERMANN E. OTT, THE KYOTO PROTOCOL: INTERNATIONAL CLIMATE POLICY FOR THE 21ST CENTURY 14 (1999)[hereinafter OBERTHÜR & OTT).

[4] For an in-depth analysis of European leadership on climate change, *see* JOYETA GUPTA AND MICHAEL GRUBB (EDS.) CLIMATE CHANGE AND EUROPEAN LEADERSHIP (2000) [hereinafter GUPTA & GRUBB]).

[5] United Nations Framework Convention on Climate Change, 9 May 1992, *reprinted in* 31 I.L.M. 849 (1992), *available at* <http://www.unfccc.int/resource/conv/index.html> (visited Dec. 10, 2001) [hereinafter UNFCCC or Convention].

[6] Kyoto Protocol to the United Nations Framework Convention on Climate Change, Conference of the Parties, 3rd Sess., Agenda Item 5, U.N. Doc. FCCC/CP/1997/L.7/Add.1, *adopted* Dec. 10, 1997, *opened for signature* Mar. 16, 1998 *available at* <http://www.unfccc.int /resource/docs/convkp/kpeng.pdf> (visited Dec. 10, 2001) [hereinafter Kyoto Protocol or Protocol].

[7] *See e.g.* "Oh no, Kyoto," *The Economist* (Apr. 7, 2001). For a summary of initial reactions to the U.S. withdrawal from Kyoto, *see* Gonçalo Cavalheiro & Nuno Lacasta,

has continued to actively pursue the Protocol's ratification and entry into force by the time of the World Summit on Sustainable Development in 2002.[8] In fact, the EU and its Member States have recently ratified the Protocol.[9] Following is a brief overview of the international climate regime[10] since 1992 (see table 1, below).[11]

Table 1: Phases of EU Climate Policy[12]

Phases	Milestone
1988-1990	Emergence of scientific concern
1990-1992	Negotiation of UNFCCC
1992-1995	Entry into force and First Conference of the Parties (COP-1)
1995-1997	Negotiation of Kyoto Protocol
1997-Present	Preparations for Protocol entry into force and implementation

"I Oppose the Kyoto Protocol": Ou Como se Deita um Acordo Internacional no Lixo! Euronatura Working Paper 1/2001, April 2001, available at: www.euronatura.pt (visited Dec. 12, 2001).

[8] *See* e.g. 2399th European Council of Environmental Ministers, Brussels, December 12-13, 2001, *available at* http://www.europa.eu.int/rapid/start /cgi/guesten.ksh?p_ action.gettxt=gt&doc=PRES/01/459|0|RAPID&lg=EN&display= (visited June 1, 2002).

[9] *See e.g.* "EU Ratifies Global Warming Treaty: Kyoto Accord En Route to Becoming Law Despite U.S. Rejection," The Washington Post, (June 1, 2002), at A15 [hereinafter EU ratification].

[10] We use in our analysis Krasner's definition of "regimes" as "Sets of implicit or explicit principles, norms, rules and decision-making procedures around which actors' expectations converge in a given area of international relations." *See* INTERNATIONAL REGIMES (Stephen D. Krasner, ed.), 1982, at. 186. For an application of the main theories of international relations to the issue of climate change, *see* I. H. Rowlands, *Major theoretical approaches, in* INTERNATIONAL RELATIONS AND GLOBAL CLIMATE CHANGE (D. Sprinz D. and U. Luterbacher, eds.), 1996 [hereinafter SPRINZ & LUTERBACHER], at 32-39.

[11] *See* for reviews and analyses of the UNFCCC negotiation, IRVING M. MINTZER AND J. AMBER LEONARD (EDS.), NEGOTIATING CLIMATE CHANGE: THE INSIDE STORY OF THE RIO CONVENTION (1994); and Daniel Bodansky, *The United Nations Framework Convention on Climate Change: A Commentary*, 18 YALE J INTL L 451-558 (1993). For review and analyses of the Kyoto Protocol, *see* OBERTHÜR & OTT, *supra* note 3; MICHAEL GRUBB, CHRISTIAAN VROLIJK AND DUNCAN BRACK, THE KYOTO PROTOCOL: A GUIDE AND ASSESSMENT (1999) [hereinafter GRUBB ET AL]; Clare Breidenich et al., *The Kyoto Protocol to the United Nations Framework Convention on Climate Change*, 92 AM J INTL L 315-326 (1998); and Nuno S. Lacasta and Pedro Martins Barata, *Análise do Protocolo de Quioto sobre Alterações Climáticas*, 4-5 Rev. de D. Ambiente e Ordenamento do Território, 105-131 (Dec. 1999) [hereinafter Lacasta & Barata].

[12] From Farhana Yamin, *The Role of the EU in Climate Negotiations, in* GUPTA & GRUBB, *supra* note 4, at 48. [hereinafter Yamin]. For a detailed account of the first three phases of EU climate policy, *see* Haigh, *supra* note 3, at 161-185.

The Convention's ultimate objective is to "achieve stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system."[13] In the face of mounting climate science[14] and in recognizing that the UNFCCC was only a first step in addressing the challenge of global warming, the international community decided to take on more stringent commitments and adopted the Kyoto Protocol in 1997. This landmark international agreement obliges developed countries and economies in transition (Annex B Parties) to reduce their overall emissions of six greenhouse gases (GHGs)[15] to "at least" five percent[16] below 1990 levels during the 2008–2012 "commitment period."[17] In order to meet their commitments in an economically efficient manner, Parties can make use of market-based instruments known as the Kyoto mechanisms (International Emissions Trading, Joint Implementation and the Clean Development Mechanism).[18] Parties can also choose to use toward their emission reduction commitments activities enhancing the ability of forests to store carbon (also known as land use change and forest activities or "sinks").[19] Such activities are currently limited to afforestation, reforestation, and deforestation, although Article 3.4 leaves a door open for the inclusion of other activities.[20]

---

[13] Article 2 UNFCCC, *supra* note 5.

[14] *See* CLIMATE CHANGE 1995: THE SCIENCE OF CLIMATE CHANGE (J.T. Houghton et al. Eds., 1996). This Second Assessment Report from the Intergovernmental Panel on Climate Change (IPCC) (established in 1988), which has been elaborated with the contribution from over 2000 scientists from all over the world, provided the scientific foundation for the strengthening of the international response to climate change that culminated in the adoption of the Kyoto Protocol. The IPCC has recently updated that report after a third assessment. *See also* CLIMATE CHANGE 2001: THE SCIENTIFIC BASIS (J.T. Houghton et al. Eds., 2001).

[15] The six GHGs are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF_6).

[16] Emissions limitation or reduction are differentiated for each party: e.g. the EU reduces by 8%, the U.S. by 7%, Japan by 6%, Russia and Ukraine stabilise, whereas Australia increases by 8% and Iceland by 10%. *See* Kyoto Protocol, *supra* note 6, Annex B.

[17] *Id.* Article 3

[18] *Id.* Article 6, 12 and 17.

[19] *Id.* Article 3.3 and 3.4.

[20] Indeed, at the resumed Sixth Conference of the Parties to the UNFCCC (COP-6.5), in mid 2001, Parties have agreed to also include as "sinks" activities those of cropland management, grazing land management and re-vegetation. In addition, and most importantly, each Annex B Party was allocated a quantity of tons of carbon uptake it

The Kyoto Conference raised the issue of climate change into the arena of "high politics" with the involvement of *inter alia* U.S. President Clinton, United Kingdom (UK) and Japan's Prime Ministers Blair and Hashimoto and Germany's Chancellor Kohl.[21] The adoption of the Kyoto Protocol was seen as a major success for international environmental cooperation, even though it left myriad matters unfinished and nearly broke down at some critical stages.[22] In November 1998, the Fourth Conference of Parties (COP-4) [23] to the FCCC adopted the Buenos Aires Plan of Action (BAPA), an ambitious work program on some of the key issues to be finalized by COP-6. [24] This work program was, however, only finished at COP-7 in 2001, after a collapse of the negotiations at COP-6 in late 2000.[25] As

---

can account towards its emissions target from forest management activities. *See Report of the Conference of the Parties on its Sixth Session*, United Nations Framework Convention on Climate Change, Conference of the Parties, 6th Sess., U. N. Doc. FCCC/CP/2001/5 (with two addenda) [hereinafter COP-6.5 Report]. At the Seventh Conference of the Parties to the UNFCCC (COP-7), in November 2001, Parties further specified the operational rules with regard to the treatment of "sinks" under the Protocol. *See Report of the Conference of the Parties on its Seventh Session*, United Nations Framework Convention on Climate Change, Conference of the Parties, 7th Sess., U.N. Doc. UNFCCC/CP/2001/13 (with four addenda)) [hereinafter COP-7 Report]. Documents also available at: www.fccc.int (visited Oct. 11, 2001). For an overview of COP-7, including the provisions on "sinks," *see* Donald Goldberg & Katherine Silverthorne, *The Marrakech Accords*, American Bar Association's Climate Change and Sustainable Development Committee Newsletter, Vol.5, No.2, January 2002, at 1-6 [hereinafter "Goldberg & Silverthorne"].

[21] *See* OBERTHÜR & OTT, *supra* note 3.

[22] *Id.*

[23] COP refers to "Conference of the Parties." Hereinafter, a numeral following the acronym refers to the specific meeting, which have taken place annually since the Convention entered into force in March 21, 1994 (U.N. Doc. FCCC/1995/Inf.3, at 1). The convention's Parties have met for seven times since its adoption in 1992. COP-1 met in Berlin in 1995 (*see* Report of COP-1, U.N. Doc. FCCC/CP/1995/7 (with one addendum)[hereinafter COP-1 Report]; COP-2 in Geneva in 1996 (*see* Report of COP-2 U.N. Doc. FCCC/CP/1996/15 (with one addendum and one corrigendum)) [hereinafter COP-2 Report]; COP-3 in Kyoto in 1997 (*see* Report of COP-3, U.N. Doc. FCCC/CP/1997/7 (with one addendum and two corrigenda)) [hereinafter COP-3 Report]; COP-4 in Buenos Aires in 1998 (*see* COP-4 Report U.N. Doc. FCCC/CP/1998/16 (with one addendum)) [hereinafter COP-4 Report]; COP-5 in Bonn in 1999 (FCCC/CP/1999/6 (with one addendum)) [hereinafter COP-5 Report], COP-6 (which had two sessions in the Hague in 2000 and in Bonn in 2001 (COP-6.5) (*see* COP-6 Report, U.N. Doc. FCCC/CP/2000/5 (with four addenda, including 5 volumes to Add.3) and COP-6.5 Report, *supra* note 20.; and COP-7 in Marrakech in 2001 (*see* COP-7 report, *supra* note 20). All documents listed *available at* <http://www.unfccc.int> (visited Oct. 11, 2001).

[24] Those issues included the financial mechanism, technology transfer, adverse effects, activities implemented jointly (AIJ) under the pilot phase, the Kyoto mechanisms, the monitoring, reporting and verification rules and a compliance regime for the Protocol. *See* Cop-4 Report, *supra* note 23.

[25] *See* Suraje Dessai, *Why did the Hague Climate Conference Fail?*, 10 Environ-

a result, Parties met at the resumed COP-6 (COP-6.5), already without the U.S. as an active negotiating Party, and reached agreement on a political package—the Bonn Agreement—on the Protocol's operational rules.[26] This political agreement was later complemented with legal texts—the Marrakech Accords—at COP-7 in late 2001.[27] These agreements have paved the way for the ratification and entry into force of the Protocol, which is expected in 2003.

This article attempts to provide an overview of key policy elements of the European Union's climate policy since the adoption of the UNFCCC in 1992 (see table 1 above). Section II discusses the main features of the EU as an actor vis-à-vis its Member States and the international community at large. Section III identifies the key actors at play in the EU context; Section IV analyzes the EU's track record on domestic policies and measures. Section V, in turn, debates selected key topics in the international climate change negotiations from a EU perspective. Finally, section VI debates the prospects of continued international EU leadership on climate change, especially now that the U.S. has withdrawn from the Kyoto Protocol.

II. THE EU AS AN INTERNATIONAL ACTOR

The EU is a *sui generis* international organization, which has been referred to as a "supranational" organization.[28] Its characteristics are new to international law in that it performs certain functions that are traditionally within the realm of the sovereign state.[29] Notably, it has the power to adopt law which has "direct effect" in the Member States, an act of implementation by the states' authorities not being necessary.[30]

---

mental Politics 139-144 (2001).

[26] *See* COP-6.5 Report; and Goldberg & Silverthorne, *supra* note 20.

[27] *See* COP-7 Report, *supra* note 20.

[28] HANS SMIT & PETER E. HERZOG, THE LAW OF THE EUROPEAN COMMUNITY, Vol. 1, § 1.02 (Publication 623, Release 40, July 2001).

[29] Richard Macrory & Martin Hession, *The European Community and Climate Change, in* O'RIORDAN & JÄGER, *supra* note 3, at 106 [hereinafter Marcory & Hession].

[30] PAUL CRAIG & GRÁINNE DE BÚRCA, EU LAW 163-167 (1998) [hereinafter CRAIG & DE BÚRCA]. EC Treaty art. 249 (ex Article 189) (*see infra* note 31) lists the different legal instruments that the EU has at its disposal: Regulations are binding in their entirety and apply directly in all Member States. Directives are binding, as to the result achieved, upon each Member State to which they are addressed. They leave the

A. THE BASIS FOR COMMUNITY ACTION

The Treaty of the European Community (EC Treaty)[31] does not contain a single legal basis for Community action in the area of climate change. Depending on the nature of the individual measures, they have been based on a variety of provisions, including, *inter alia*, Articles 71 (ex Article 75, Transport), 95 (ex Article 100a, Approximation of laws), 133 (ex Article 113, Common commercial policy), as well as on the Community's environmental competence[32] as set out in Title XIX of the EC Treaty, especially Article 174 (ex Article 130r). Its paragraph 1 provides that community policy on the environment shall contribute to pursuit of the following objectives:

- preserving, protecting and improving the quality of the environment;
- protecting human health;
- prudent and rational utilization of natural resources;
- promoting measures at international level to deal with regional or worldwide environmental problems.

Paragraph 4 explicitly provides for international cooperation, *inter alia* through the conclusion of treaties with third countries. Its first subparagraph reads:

> Within their respective spheres of competence, the Community and the Member States shall cooperate with third countries and with the competent international organizations.

---

choice of form and methods to the national authorities. Decisions are binding in their entirety upon the addressees. Recommendations and opinions are not binding.

[31] Treaty establishing the European Community (hereinafter EC Treaty) as amended by the 1997 Treaty of Amsterdam, *available at* <http://www.europa.eu.int/eur-lex/en/treaties/dat/ec_cons_treaty_en.pdf> (visited Dec. 11, 2001). As the Treaty of Amsterdam renumbered the articles of the EC Treaty, we will cite the old article in parentheses. In late 2000, the Treaty of Nice amended the Amsterdam Treaty, but the former has not yet entered into force. The Nice treaty has not nonetheless clarified the questions addressed in this paper. We will therefore not take it into account in our analysis. *See*, for an analysis of EU environmental policy after Nice, Andrew Jordan & Jenny Fairbrass, *European Union Environmental Policy after the Nice Summit*, 10 ENVT'L POLITICS 109-114.

[32] The word "competence" is used often by europeans in describing the mandate and/or relationships between eu states and the commission, etc. However, the word is not typically used that way in the U.S.

> The arrangements for Community cooperation may be the subject of agreements between the Community and the third parties concerned, which shall be negotiated and concluded in accordance with Article 300.

Article 175 (ex Article 130s) determines the general procedure for the adoption of measures under Article 174, while Article 300 (ex Article 228) contains special rules for the conclusion of agreements according to Article 174 paragraph 4.

B. EXCLUSIVE VERSUS SHARED COMPETENCE

One of the features of the EU that most clearly distinguishes it from a state is the fact that the EU does not have comprehensive competence. On the contrary, it has competency to the extent that Member States have granted it.[33]

In a few areas, the Member States have decided that the EU should be solely responsible for dealing with all issues that may arise pertaining to that particular subject matter ("exclusive" competence). This is arguably the case, for example, of the common commercial, agricultural and fisheries policies,[34] but not for the field of environmental policy. According to the first paragraph of Article 174 (ex Article 130r), which determines the scope of the Community's environmental competence, the EU environmental policy only "contributes" to the conservation and improvement of the environment. In addition, Article 176 EC Treaty (ex Article 130t) explicitly reserves the Member States' right to adopt more stringent measures than those adopted by the Community.[35] This is a case of "shared" or mixed competence between the Community and its Member States. Both entities have the power to take action, legislative and non-legislative, in the field of environmental protection. The Member States can act insofar as the EU has not done so.[36]

---

[33] EC Treaty art. 5, ¶ 1 (ex Article 3b); CRAIG & DE BÚRCA, *supra* note 30, at 124. Further, the Community has legal personality insofar as the Member States have conferred competence on it. *See* EC Treaty art. 281 (ex Article 210), *supra* note 31; P.J.G. KAPTEYN & P. VERLOREN VAN THEMAAT, INTRODUCTION TO THE LAW OF THE EUROPEAN COMMUNITIES 97-101 (1998) [hereinafter KAPTEYN & VAN THEMAAT].

[34] CRAIG & DE BÚRCA, *supra* note 30, at 124-126.

[35] Macrory & Hession, *supra* note 29, at 106, 123.

[36] Agnethe Dahl, *Competence and Subsidiarity, in* GUPTA & GRUBB, *supra* note 4, at

It is important to note that for areas of shared competence, the EC Treaty contains a presumption that the Member States rather than the Community should take necessary action.[37] According to the "subsidiarity" principle, the EU takes measures "only if and insofar as the objectives of the proposed action cannot be sufficiently achieved by the Member States and can therefore [. . .] be better achieved by the Community."[38] This principle was introduced in 1987 for environmental regulation[39] and, since the adoption of the 1992 Maastricht Treaty, is applicable as a general rule to all areas of shared competence. Subsidiarity restricts the Community's scope of action in the environmental field. The debate around subsidiarity has been highly politicized, and as a result decisions on attribution of competence have primarily been made for political and economic rather than environmental reasons.[40] In particular, the subsidiarity principle has been used to impede the surrender of further powers to the Community in the field of climate change.[41]

EU competence is particularly limited in the crucial energy sector. In fact, the Treaties do not contain any formal Community competence in this field. Energy legislation has therefore been based on the – exclusive – EU competence on internal market issues,[42] and attempts have been made to take energy-related measures on the basis of EU environmental powers. However, by invoking the subsidiarity principle, Member States have frequently managed to retain their sovereignty in all important areas.[43] As will be shown in detail below (Section IV), EU policy proposals in this field have frequently failed or have been considerably weakened. For instance, some Member States have, to date, successfully prevented the adoption of a

---

203, 205 [hereinafter Dahl].

[37] *Id.* at 203, 213.

[38] EC Treaty art. 5 ¶ 2 (ex Article 3b), *supra* note 31.

[39] Former Article 130r (for explanation, *see supra* note 31).

[40] Ute Collier, *The EU and Climate Change Policy: the Struggle over Policy Competences, in* CASES IN CLIMATE CHANGE POLICY 43, 48 (Ute Collier & Ragnar Löfstedt eds., 1997 [hereinafter COLLIER & LÖFSTEDT]) [hereinafter Collier].

[41] *See* Collier, *id* at 43, 53-55; Dahl, *supra* note 36, at 203, 217; Haigh, *supra* note 3, at 165, 179; and IAN MANNERS, SUBSTANCE AND SYMBOLISM: AN ANATOMY OF COOPERATION IN THE NEW EUROPE 74 (2000) [hereinafter MANNERS].

[42] *For an overview see* Dahl, *supra* note 36, at 203, 208, *and* Collier, *supra* note 40, at 43, 49, 50.

[43] *Id.* at 43, 49; *also* Dahl, *supra* note 36, at 203, 209.

Community-wide CO_2/energy tax, which the Commission first suggested in 1991. Similarly, the European energy efficiency program (SAVE)[44] was considerably weakened as a direct result of Member States bringing the subsidiarity principle into play.[45] Agnethe Dahl, in analyzing the interplay between EC competence and subsidiarity in the climate change arena, was led to conclude that the subsidiarity principle has dominated the evolution of EU climate policy.[46]

C. INTERNAL VERSUS EXTERNAL COMPETENCE

The internal competences of the EU are paralleled by external powers. Insofar as it is competent to promulgate regulation within the Community, the EU can also enter into negotiations and conclude treaties with other states and international organizations. Because Community law preempts Member State law, only the EU has the power to accept and implement international obligations in areas of EU competence. Where the Treaty does not provide explicitly for such external competences, they are therefore considered to be "implied powers."[47] As stated above, Article 174, paragraph 4 (ex Article 130r) explicitly provides for an external Community competence in the field of environmental policy.

As the external competence corresponds to the internal powers, the split of competences described in the previous section also occurs in the external sphere. Article 174, paragraph 4 expresses this by referring to "[the EC and its Member States] respective spheres of competence." This is the reason why both the EU and its Member States are Parties to the UNFCCC and the Kyoto Protocol and they both need to ratify these agreements.

The UNFCCC and the Kyoto Protocol as well as other environmental treaties are what can be termed "mixed" agreements. They cover a variety of subject matters – including e.g.

---

[44] *See* Section IV.X below.

[45] *See* Collier, *supra* note 40, at 43, 55; Dahl, *supra* note 36, at 203, 216; and Haigh, *supra* note 3, at 155, 166, 175, 179.

[46] Dahl, *supra* note 36, at 203, 204.

[47] CRAIG & DE BÚRCA, *supra* note 30, at 115-119; Macrory & Hession, *supra* note 29, at 106, 123-125.

environmental protection and trade, so that neither the EU nor its members have the exclusive power to execute these accords.[48] In theory, only the EU is entitled to participate in negotiations concerning matters of exclusive Community competence, while the Member States are entitled to participate in negotiations in areas of exclusive Member State competence. Both are entitled to participate in fields of shared competence.[49] These areas cannot, however, be easily be delineated from one another. This has at times caused the EU members and institutions to enter into internal negotiations within the context of external negotiations in order to decide who is competent regarding the issue under discussion.[50] On occasion, it has even barred the EU from participating altogether.[51] This has sometimes placed the EU at a disadvantage compared with other actors.[52]

Because the clear determination of respective competences is virtually impossible, the Presidency of the Council speaks on behalf of the Community and its Member States in climate negotiations, conveying agreed upon common positions.[53] Since such common positions affect in part areas of Member State competence, they must be approved by consensus. As a result, the process of reaching agreement among all EU members and the European Commission can be cumbersome, and can delay necessary action and inhibit the EU's capability to demonstrate leadership in international negotiations. In situations where swift moves are indispensable, especially during the last hours of decisive negotiations, the EU's negotiating ability can sometimes be paralyzed.[54] In addition, the outcome of these internal negotiations is likely to reflect lowest common denominator

---

[48] Joseph Jupille & James A. Caporaso, *States, Agency, and Rules: The European Union in Global Environmental Politics, in* THE EUROPEAN UNION IN THE WORLD COMMUNITY (Carolyn Rhodes ed., 1998 [hereinafter RHODES) 213, 218 [hereinafter Jupille & Caporaso].

[49] Macrory & Hession, *supra* note 29, at 106, 113, 136.

[50] *Id.* at 213, 218. *See* also Jupille & Caporaso, *supra* note 48, at 222, further note on the UNFCCC negotiations that with the exception of areas of exclusive competence, "the EC's authority was rarely clear to anyone, including the EC participants themselves."

[51] *Id.* at 213, 222.

[52] *Id.* at 213, 225.

[53] Macrory & Hession, *supra* note 29, at 106, 136. *See also* Section III.D.1 *below*.

[54] OBERTHÜR & OTT, *supra* note 3, at 268; Hermann E. Ott, *Climate change: an important foreign policy issue*, 77 INT'L AFF. 277, 285 (2001) [hereinafter Ott].

positions even before the EU enters into bargaining with outside governments (see section VII, below).[55]

D. NEGOTIATING CLIMATE CHANGE: INTERNAL AND EXTERNAL ORGANIZATION

1. Reaching a Common Position: The Council

Although the European Parliament's role has to some extent been strengthened by recent treaty reforms, the Council of the European Union is still the most powerful EU body.[56] The Council is the EU's primary decision-making, legislative, and coordinating authority. It consists of a representative at ministerial level of each Member State.[57] In the case of climate policy, the Council usually consists of the environment ministers.[58] The members of the Council are bound by instructions from their respective governments, but they are also obligated – as parts of a Community institution – to act for the EU's common good.[59]

Decision-making procedures and Council voting rules vary in different areas of EU competence. Most matters are now decided by qualified majority voting.[60] In the field of environmental regulation, the procedure of co-decision between the Council and the European Parliament, which provides for qualified majority voting within the Council,[61] is to be generally applied. [62] Article 175 (ex Article 130s), paragraph 2, however, contains important exceptions that apply when the Council

---

[55] Joyeeta Gupta & Lasse Ringius, *The EU's Climate Leadership: Reconciling Ambition and Reality*, 1 INT'L ENVTL. AGREEMENTS 281 286 (2001) [hereinafter Gupta & Ringius]; MANNERS, *supra* note 41, at 57-58; Bert Metz et al., *How Can the European Union Contribute to a COP-6 Agreement?*, 1 INT'L ENVTL. AGREEMENTS 167, 169 (2001) [hereinafter Metz et al]; *Accord* Jupille & Caporaso, *supra* note 48, at 213, 219, 226.

[56] Mikael Skou Anderson & Lise Nordvig Rasmussen, *The Making of Environmentl Policy in the European Council*, 36 J. OF COMMON MKT. STUDIES 585-97.

[57] EC Treaty art. 202-210 (ex Articles 145-154), *supra* note 31; CRAIG & DE BÚRCA, *supra* note 30, at 57-58.

[58] Henry D. Jacoby & David M. Reiner, *Getting climate policy on track after The Hague*, 77 INT'L AFF. 297, 300 (2001) [hereinafter Jacoby & Reiner].

[59] KAPTEYN & VAN THEMAAT, *supra* note 33, at 187-188.

[60] CRAIG & DE BÚRCA, *supra* note 30, at 130 (1998). EC Treaty art. 205 ¶ 2 (ex Article 148), *supra* note 31, defines the qualified majority.

[61] EC Treaty art. 251 (ex Article 189b), *id.*

[62] EC Treaty art. 175, ¶ 1 (ex Article 130s), *id.*

must act unanimously on matters primarily of a fiscal nature and "measures significantly affecting a Member State's choice between different energy sources and the general structure of its energy supply."

In the context of climate negotiations, the Council plays a key role both in the run-up to negotiations and in signing and ratifying the relevant agreements. Before a negotiating session, the EU and its members meet in Council formation to discuss and agree on a common position. The fact that the Council was able at various stages of the climate negotiations to reach agreement on specific internal climate policies, e.g. burden sharing among Member States, has both ensured a common EU line and strengthened the EU's leadership role during those negotiations.[63] However, this leadership is sometimes much less effective in the "heat" of complex international negotiations, in which a Party is expected to think and act quickly (see section VII, below). The EU has often shown a lack of flexibility and expedition; it clearly has an effectiveness gap in international negotiations on areas of mixed competence like climate change.[64]

The process of reaching a common position within the Council is characterized by bargaining and uncertainty until the last moment. Success depends considerably on the leadership exerted by the country holding the Presidency[65] at a given moment, which in effect has to broker the deal among the other Member States and the Commission.[66] After COP-1 (1995), an Ad Hoc Group on Climate Change was established at Council level. This EU coordinating group has enhanced the EU's effectiveness in reaching a common position.[67] The group is further divided into working groups (as many as half a dozen at times) that analyze different negotiation proposals at a technical level with third Parties and prepare policy packages for adoption by the Ad Hoc Group and the Council of ministers.

---

[63] MANNERS, *supra* note 41, at 64.

[64] Yamin, *supra* note 12; and GUPTA & GRUBB, *supra* note 4.

[65] *See infra* Section II.D.2.

[66] Historically, smaller Member States have been more prone to reaching consensus—and to a certain extent foregoing their strict national position in favor of an overall EU position. Thus has been clearly the case for Sweden and Belgium in recent years. Bigger Member States, in contrast, tend to try to impose their own priorities, or to broker agreement with other bigger states or influential smaller states.

[67] OBERTHÜR & OTT, *supra* note 3, at 65.

Once an international agreement is reached, the Council is responsible for signing and concluding the treaty or agreement.[68] Similar to the rules for internal decision-making, the Council decides by a qualified majority. However, it must act unanimously when the agreement covers a field for which unanimity is required for the adoption of internal rules.[69] There have been arguments over the question of whether the second paragraph of Article 175 EC Treaty (ex Article 130s), which requires unanimity, applies to the conclusion of climate agreements. When the UNFCCC was adopted, the UK argued that it did—in that climate policy affected significantly energy policies. The Council legal service, on the other hand, held that Article 175, paragraph 1 governed and thus the qualified majority voting procedure applied. The problem was resolved politically when the UK abstained from voting.[70] The approval process regarding the Kyoto Protocol,[71] once again, addressed this question. The Council faced intense discussions in reaching an agreement on ratification, because several Member States, including the UK (and to a lesser extent France), argued for the necessity of unanimity. In order to settle the dispute, the Council adopted a declaration according to which further national obligations to reduce emissions should be decided upon by consensus. It managed, however, to ratify the Kyoto Protocol by under Article 175, paragraph 1 of the EC Treaty.[72]

2. Negotiating Internationally: The Role of Presidency

The Council is headed by the Presidency, which is held alternately by each Member State for six months.[73] The Presidency is assisted by the Commission and the Member States

---

[68] EC Treaty art. 300 ¶ 2 (ex Article 228), *supra* note 31.

[69] EC Treaty art. 300 ¶ 1, subparagraph 2, and ¶ 2, subparagraph 1 (ex Article 228), *supra* note 31.

[70] Haigh, *supra* note 3, at 155, 178.

[71] Commission Proposal for a Council Decision, COM(2001) 579, *available at* <http://europa.eu.int /comm/environment/climat/com/01579_en.pdf> (visited Dec. 11, 2001).

[72] *See* 2413th European Council of Environmental Ministers, Brussels, Mar. 4, 2002 (provisional version). Available at: http://ue.eu.int/en/summ.htm (visited Mar. 5, 2002) [hereinafter March 2002 Council].

[73] EC Treaty art. 203 ¶ 2 (ex Article 146), *supra* note 31.

holding the preceding and the upcoming Presidency, these three forming the traditional so-called "Troika."[74]

The Presidency coordinates the formation of the EU's common position and presents it at international negotiations.[75] Its management of the process is vital for the effectiveness of the EU negotiating stance. The Presidency determines the agenda of the Council, chairs its sessions and coordinates the Member States at negotiations.[76] Thus, the effectiveness of the EU in international negotiations is influenced by the Presidency's internal management and external negotiating skills and tactics. For example, in the run-up to Kyoto, EU climate policy did not progress much during the Italian and Irish Presidencies in 1996. While in the first half of 1997, the Dutch Presidency drove the process forward significantly, which resulted in the approval by the Council of the EU Burden Sharing Agreement, as well as a negotiating 15% reduction target by 2010, and an intermediate 7.5% reduction target by 2005 (see infra, Section V.B.).[77] Similarly, German leadership—and insistence—on the matter of using the Kyoto market mechanisms as "supplemental to domestic actions,"[78] ensured that during its Presidency, in the first half of 1999, the EU concluded and presented a negotiating proposal on this matter.[79]

In terms of negotiating with third parties, the Presidency's leadership is also conditioned by practical and political considerations. For instance, two of the three Presidencies immedi-

---

[74] After the Treaty of European Union and The Treaty of Amsterdam, *supra* note 3, the Troika currently consists of the Presidency in office, the Secretary-General of the Council, in his capacity as High Representative for the common foreign and security policy, and the Member State which is next in line for the Presidency. In the climate context, however, the practice has been to use the *traditional* rather than the *current* Troika i.e. the Presidency in office, the Member State to hold the next Presidency and the Commission. *See* Glossary, available at: http://www.europa.eu.int/scadplus/leg/en/cig/g4000t.htm#t6 (visited Dec. 10, 2001).

[75] OBERTHÜR & OTT, *supra* note 3, at 14.

[76] CRAIG & DE BÚRCA, *supra* note 30, at 58-59; OBERTHÜR & OTT, *supra* note 3, at 66.

[77] OBERTHÜR & OTT, *supra* note 3, at 67.

[78] Article 17 states that Parties' use of international emissions trading "shall be *supplemental* to domestic actions for the purpose of meeting [the emissions targets]." (Emphasis added.) This language was included upon the insistence of the EU. *See* Joanna Depledge, Tracing the Origins of the Kyoto Protocol: an Article-by-Article Textual History U.N. Doc. FCCC/TP/2000/2 (2000) [hereinafter Depledge], at 83-85; OBERTHÜR & OTT, *supra* note 3, at 188-205. *See also* Section X, below.

[79] *See* 2178th Council of Agriculture Ministers, Brussels May 17, 1999. Available at: http://ue.eu.int/newsroom/newmain.asp?lang=1 (visited Dec. 12, 2001).

ately before COP-7 (2001)—France and Belgium— adopted considerably different coordination and negotiation practices, perhaps reflecting the differences in capacities and posture between a large and a medium Member State. France, which held the Presidency during the second semester of 2000, at times[80] clearly pushed for what seemed like its own domestic agenda in the internal EU coordination and watched the UK unilaterally enter into tentative negotiations with the U.S. aimed at securing agreement between the EU and the U.S.[81] On the other hand, Belgium, which held the Presidency during the second semester of 2001, took a more consensus-based approach internally and relied considerably on the assistance of the European Commission (discussed below in Section IIIB) as well as on a division of labor between Member States, especially at the technical level.[82]

The rotation of the Presidency every six months in itself presents a problem, because it has not allowed the EU's climate policy to develop in a coherent and stable way,[83] and has not provided negotiating partners with a steady arrangement.[84] This is unlikely to change in the foreseeable future.

III. KEY ACTORS WITHIN THE EU

A. MEMBER STATUS

The EU currently consists of 15 Member States,[85] the greenhouse gas emissions patterns and energy mix and con-

---

[80] Especially during COP-6.

[81] *See* Michael Grubb and Farhana Yamin, *Climatic collapse at The Hague: What happened, why, and where do we go from here?*, INTERNATIONAL AFFAIRS 77, 2 (2001), at 263-264, available at: www.field.org.uk/papers/pdf/cop6.pdf (visited Apr. 12, 2002) [hereinafter Grubb & Yamin]; and Ott, *supra* note 54, at 277.

[82] Such a technical legal division of labor has, as a matter of fact, been commonplace for quite some time, at least since 1995. It derives mainly from the extreme complexity of the issues under negotiation (which include the setting of an elaborated set of rules on a an international monitoring, reporting and verification regime for GHGs emissions, as well as an international emissions trading system), a growing sense of team work at the technical level, and also the fact that virtually every Presidency lacks the capacity to tackle comprehensively and effectively such issues.

[83] OBERTHÜR & OTT, *supra* note 3, at 268; Ott, *supra* note 54, at 277, 285.

[84] Ott, *id.*, at 277, 285; *cf. also* Sebastian Oberthür, *The EU as an International Actor: The Protection of the Ozone Layer*, 37 J. OF COMMON MKT. STUDIES 641, 646 (1999) [hereinafter Oberthür 1999].

[85] Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy,

sumption of which vary widely.[86] The disparity in emission characteristics, abatement costs, possible impacts of climate change, and relative level of economic development in the different Member States presents a significant obstacle to agreement on a common climate policy,[87] and to a certain extent provides an illustration of the climate change discussions at the global level.[88] Thus the resulting variations in Member states' willingness and capability to reduce emissions (see section V.B below). In addition, Member States' readiness to endow the EU with further competences varies widely, with the UK in particular being traditionally euro-skeptical in this regard.[89]

Ian Manners, discussing the UNFCCC negotiations in the early 1990s, divides the Member States into "lead states" (mainly Germany, the Netherlands and Denmark—after 1995 joined by the new Member States Sweden and Finland),[90] "support states" (primarily Italy and Belgium), "swing states" (chiefly Spain, Ireland, Portugal and Greece), a "veto state," the UK (which tended to position itself closer to the U.S. than to the EU, although less so in recent years), and France shifting from an initial status as a support state to one of a swing state.[91] It is beyond the scope of this paper to illustrate comprehensively the positions of the fifteen Member States with regard to the EU positioning on the climate negotiations. Suffice it to say, however, that countries strongly pursue their national interests at the EU level through Council meetings, and at the international level through constant, tacit pressure on the country holding the Presidency to uphold the collective EU

Luxembourg, Netherlands, Portugal, Spain, Sweden, and the United Kingdom.

[86] For instance, with the exception of the UK, the EU as a whole and every EU Member State are net importers of energy. GRUBB ET AL, *supra* note 11, at 30. For a comprehensive review of Member States and Community's greenhouse gas emissions and trends, *see* Commission of the European Communities, Report under Council [on the] monitoring mechanism of Community greenhouse gas emissions, Nov. 30, 2001, COM(2001) 708 Final.

[87] Ute Collier, *The EU and Climate Change Policy: the Struggle over Policy Competences, in* CASES IN CLIMATE CHANGE POLICY 43, 44 (Ute Collier & Ragnar Löfstedt eds., 1997).

[88] GRUBB ET AL, *supra*, note 11, at 30.

[89] CLIVE H. CHURCH & DAVID PHINNEMORE, EUROPEAN UNION AND EUROPEAN COMMUNITY 49, 508 (1994).

[90] These countries are those usually more sensitive to environmental issues in general.

[91] MANNERS, *supra* note 41, at 60-62. More recently, the UK has adopted positions closer to the EU majority, *id.*, at 76.

position.[92] However, without the EU's collective "weight" individual Member States' interests might simply not be able to prevail on the negotiating arena in the face of such sizable negotiating partners as the U.S., Japan, China or Brazil. In a recent statement German Environment Minster Jürgen Trittin has illustrated this point quite effectively:

> In such negotiations, Germany does not act as a nation state and can only play an active role within the EU... I don't see this as a loss of power of the nation state. On the contrary, as far as environmental policy is concerned, it has been extraordinarily useful that the EU speaks with one voice and acts, at global environmental conferences like Bonn or Marrakech, as a strong nation state. This way, we have been able to continue the Kyoto Process despite the blockage by the United States.[93]

B. EUROPEAN COMMISSION

The European Commission (Commission) has been referred to as the motor of the Community[94] and the guardian of the treaties.[95] It performs a broad range of important functions, from elaborating legislative proposals to ensuring the implementation of European law. It generally enjoys the exclusive right to initiate legislative procedures.[96] Unlike the Council, the Commission does not consist of Member State officials, but of 20 independent individuals, one or two nationals of

---

[92] EU negotiators often feel exasperated by the lack of leeway they are awarded in negotiating the EU position. That is because they are essentially tied to the wording of the most current Council conclusions, which are by definition starting positions. However, the internal EU dynamics at international climate meetings is less than prone to rapid changes. That is essentially due to the fact that the EU has typically not fully discussed bottom line positions before the start of the negotiations. It thus spends most of the precious negotiation time discussing internally rather than trying to convince other Parties of its own positions and trying to reach agreement. It comes therefore as no surprise to repeatedly observe Member States' representatives bickering in the media, as was the case after COP-6 in 2000 (Grubb&Yamin, *supra* note 81, at 263-4; and Ott, *supra* note 54, at. 277).

[93] http://www.bmu.de/reden/rede_trittin011208.php (visited Dec.17, 2001).

[94] RUDOLF GEIGER, EG-VERTRAG Article 155/2 (1995).

[95] *For the* role of the European Commission, *see* http://www.europa.eu.int/comm/role_en.htm#3 (visited Dec. 10, 2001).

[96] EC Treaty art. 211, 249-252 (ex Articles 155, 189-189c), *supra* note 31. In the field of environmental policy, this power flows from Articles 175, 251 EC Treaty (ex Articles 130s, 189b), *id.*

each Member State.[97] It takes decisions by a the majority of its members.[98]

The Commission is organized in Directorates-General (DGs),[99] several of which play a significant role in climate policy (e.g. the DGs for environment, energy, taxation). Because of their different functions and clientele—some DGs being closer to business representatives and others to environmental groups[100]—, agreement amongst them on climate policies has not always been easy to reach, especially during the run up to the UNFCCC negotiations.[101] More recently, in the context of the Commission's intra-service negotiation on a proposal for an emissions trading directive, DGs Environment, Energy & Transport and Enterprise were particularly active in brokering an internal Commission deal.

In other environmental regimes, e.g. the ozone regime, the Council has mandated the Commission to conduct the negotiations on behalf of the EU.[102] Within the climate regime, however, Member States could not agree to follow the same procedure. The Council did not grant the Commission's request to endow it with negotiating authority[103] for the Kyoto Protocol negotiations, because many members opposed transferring more competences to the EU level.[104] As described above,[105] the Presidency rather than the Commission fulfills the task of coordinating and presenting the EU position in climate negotiations. As a result, the Commission plays a limited role.[106] It participates as equal partner in establishing the EU common position, on which it and all Member States must agree.[107]

---

[97] EC Treaty art. 213 paras 1, 2 (ex Article 157), *id*; KAPTEYN & VAN THEMAAT, *supra* note 33, at 195-196.

[98] EC Treaty art. 219 ¶ 2 (ex Article 163), and Article 213, paragraphs 1 and 2 (ex Article 157), *supra* note 31.

[99] *For an overview of* Commission's Directorates-General and Services, *see* generally <http://www.europa.eu.int/comm/dgs_en.htm> (visited Dec. 10, 2001).

[100] MANNERS, *supra* note 41, at 69-70, 73.

[101] *Id.* at 63-4 (2000).

[102] Macrory & Hession, *supra* note 29, at 106, 112; for a detailed description of its role in ozone negotiations *see* Oberthür 1999, *supra* note 84, at 641, 645-646.

[103] Such authorization of the Commission by a Council decision is provided for in EC Treaty art. 300 ¶ 1 (ex Article 228), *supra* note 31.

[104] OBERTHÜR & OTT, *supra* note 3, at 66.

[105] *See* Section II.D.2.

[106] OBERTHÜR & OTT, *supra* note 3, at 269.

[107] Ott, *supra* note 54, at 277, 285.

The refusal to grant the Commission a negotiating mandate has considerably weakened EU negotiating capacities.[108] While in the ozone negotiations the Commission has facilitated agreement among the Member States, the guidance of the EU by the rotating Presidency does not provide a stable foundation for the process and prevents the development of a medium or long term negotiating strategy (see section VII, below).[109]

C. BUSINESS

The business community has taken an increasing interest in the climate negotiations.[110] Early in the process, business focused on fighting any restriction of fossil fuel use. The U.S.-based Global Climate Coalition, a group of multinationals that invested much money and efforts primarily in discrediting climate science, is a prominent example of early business activity in the climate regime.[111]

In Europe, the Commission's proposal for an energy tax faced "some of the most ferocious lobbying"[112] the EU had ever experienced when it became clear that it would not be a "no regrets" measure, as the EU had previously asserted. The well organized business lobby, led by the Union of Industrial and Employer's Confederations of Europe (UNICE), played a major part in the inclusion of a "conditionality clause" in the energy tax proposal, which ensured that the measure would not be applied unless the major OECD competitors introduced similar measures.[113]

---

[108] OBERTHÜR & OTT, *supra* note 3, at 66.

[109] *Id.* at 286-269; Oberthür 1999, *supra* note 84, at 641, 645-646; Ott, *supra* note 54, at 277, 285.

[110] Chad Carpenter, *Business, green groups and the media: the role of non-governmental organizations in the climate change debate*, 77 INT'L AFF., 313 314 (2001) [hereinafter Carpenter].

[111] *Id.* at 313 314; Clair Gough & Simon Shackley, *The respectable politics of climate change: the epistemic communities and NGOs*, 77 INT'L AFF. 329, 334 (2001) [hereinafter Gough & Shackley].

[112] The Economist, May 9, 1992, at 19.

[113] Commission of the EC, Proposal for a Council Directive Introducing a Tax on Carbon Dioxide Emissions and Energy, 30 June 1992, COM(92) 226 Final, at 4; (for a general description of the evolution of EU policy from "no regrets" to conditionality in this early phase *see* IAN MANNERS, *supra* note 41, at 42-9, 59-60, 63-4, 70; and Jorge Wettestad, *The complicated development of EU climate policy: lessons learnt, in* GUBTA & GRUBB, , *supra* note4, 25-45 [hereinafter Wettestad]. For current UNICE policy *see*

Over time and with ever-increasing certainty in climate science, the picture has become much more diverse. Many businesses have now accepted the need for action. Some have begun developing renewable energy and energy efficiency programs, set voluntary emission reduction targets and undertaken emission trades.[114] After British Petroleum withdrew from the Global Climate Coalition,[115] other companies followed suit, and the Business Environmental Leadership Council was founded in the run-up to Kyoto. This council accepts the scientific evidence of climate change and believes businesses should play a major role in finding a solution.[116]

More recent developments in Europe include the creation of the European Business Council for a Sustainable Energy Future (e5) in 1996, which is dedicated to sustainable development achieved primarily through energy efficiency, renewable energy and sustainable housing and transport policies,[117] and the launch of e-mission 55 in the run-up to COP-6.5, in July 2001. E-mission 55 called for the adoption of meaningful political decisions by the COP and entry into force of the Kyoto Protocol by 2002.[118] Both groups have a substantial number of European members.[119]

D. ENVIRONMENTAL NON-GOVERNMENTAL ORGANIZATIONS

Environmental non-governmental organizations (NGOs), most of them organized in the global Climate Action Network

---

<http://www.unice.org> (visited Dec. 11, 2001).

[114] *For a detailed account see* Carpenter, *supra* note 110, at 313 314-319. *See also* Gough & Shackley, *supra* note 111, at 329, 334; Gupta & Ringius, *supra* note 55, at 281 286; WWF Climate Savers, *available at* <http://www.panda.org/climate/savers.cfm> (visited Dec. 6, 2001).

[115] The Global Climate Coalition closed down recently, possibly attesting to the fact that it was rapidly losing membership. *See* Nature, Feb. 7, 2002, at 567.

[116] Business Environmental Leadership Council, *available at* <http://www.pew climate.org/belc/ index.cfm> (visited Dec. 6, 2001); Gough & Shackley, *supra* note 111, at 329, 334.

[117] e5: History, *available at* <http://www.e5.org/pages/energy.htm> (visited Dec. 6, 2001); The Sustainable Energy Charter , *available at* <http://www.e5.org/pages/sec .htm> (visited Dec. 6, 2001).

[118] e-mission 55, *available at* <http://www.solarworld.de/E-Mission-55/frame_index/e _index.htm> (visited Dec. 10, 2001).

[119] e5 Members 2001, *available at* <http://www.e5.org/pages/comp.htm> (visited Dec. 6, 2001); e-mission 55 Solution Site, *available at* <http://www.solarworld.de/E-Mission-55/solutions/e_home .htm> (visited Dec. 6, 2001).

(CAN),[120] have played an important role in climate negotiations from the outset. Their number has increased from 191 accredited observers at COP-1 in 1995 to over 530 at COP-6 in 2000.[121] They have been participating in a number of ways, including raising public awareness, e.g. through the media or demonstrations; making presentations on specific topics in side-events at the COPs;[122] providing analyses, research papers and comments;[123] publishing ECO, CAN's newsletter on the negotiating process;[124] lobbying and discussing the issues with negotiators; making formal interventions during negotiating sessions; and assisting parties in drafting legal texts for UNFCCC documents.[125]

The role of NGOs in the climate arena differs from that in many other fields, in that they have participated as partners in developing the regime rather than simply playing the part of outside critics.[126] NGOs are part of what has been described as an "epistemic community," a network of communities that share knowledge about a certain phenomenon and a common set of normative beliefs concerning what actions will benefit human welfare in this domain.[127] As in other fields, climate NGOs reflect a heterogeneous universe of stakeholders, such as generalist versus specialized/expert NGOs, membership versus non-membership NGOs, etc.

---

[120] *See* <http://www.climatenetwork.org> (visited Dec. 12, 2001). CAN has a global membership of 20 Million people, PETER NEWELL, CLIMATE FOR CHANGE 128 (2000) [hereinafter NEWELL].

[121] Carpenter, *supra* note 110, at 313 319.

[122] For reports on some COP-7 side events *see* Earth Negotiations Bulletin - On the Side, *available at* <http://www.iisd.ca/linkages/climate/cop7/enbots> (visited Dec. 12, 2001).

[123] *See* e.g. Independent NGO Evaluation of National Plan for Climate Change Mitigation: Second Review, August 1994, Climate Action Network.

[124] *See* Climate Network, *available at* <http://www.climatenetwork.org> (visited Dec. 12, 2001).

[125] Carpenter, *supra* note 110, at 313 319-321; for an extensive overview over different NGOs *see* Gough & Shackley, *supra* note 111, at 329, 336-339, 341-345. For a portrayal of CAN *see* Matthias Duwe, *The Climate Action Network: global civil society at work?*, 10 RECIEL 177-189 (2001) [hereinafter Duwe].

[126] Gough & Shackley, *supra* note 111, at 329, 329; *similar* MANNERS, *supra* note 41, at 69.

[127] Peter M. Haas, *Epistemic Communities and the Dynamics of International Environmental Co-Operation, in* REGIME THEORY AND INTERNATIONAL RELATIONS 168, 179 (Volker Rittberger ed. with assistance of Peter Mayer 1993).

In Europe, cooperation between governments and the Commission and NGOs has been particularly close. Some government delegations even include experts originating from NGOs, especially from expert/specialized NGOs.[128] In addition, Member States as well as the Commission have made frequent use of the competence of NGO experts, e.g. by funding climate-related research projects carried out by NGOs[129] and by discussing relevant issues with them outside and also during negotiations.[130] For instance, in preparing a proposal for an emissions trading directive, the Commission relied on the expert advice of several European (and American) based NGOs. In many areas, NGOs clearly possess advanced technical knowledge which several EU delegations lack.

NGO presence varies in different EU countries. The number of NGOs listed in the 2000 CAN Directory ranges from two (Spain) to nineteen (UK) in large Member States and from one in Luxembourg to five in the Netherlands and seven in Belgium, the seat of many important EU institutions.[131] NGO influence has been heightened by the sensitivity to their demands from the part of certain Member States.[132] For instance, it has been suggested that NGO opposition to the UK-U.S. deal at COP-6, which among other elements included the possibility of accounting "generous" amounts of carbon storage activities for the U.S. and other countries, might have contributed to the decision of some EU countries to reject that deal, notably Denmark and Germany.[133]

CAN Europe differs in certain respects from other CAN regional offices. While most CAN coordinators are employees of regional NGOs and carry out their CAN functions alongside

---

[128] *See* List of Participants, FCCC/CP/2000/INF.2, *available at* <http://cop6.unfccc.int/pdf/lopcop6 .pdf> (visited Dec. 11, 2001).

[129] *E.g.* Oberthür 1999, *supra* note 84, at 641: *see* n. at 641; Jürgen Lefevere & Farhana Yamin, *The EC as a Party to the FCCC/KP: An examination of EC competence* (1999), *available at* <http://www.field.org.uk/papers/pdf/2%20ECcompetence.pdf> (visited Dec. 7, 2001).

[130] On environmental NGO consultation by the Commission in general *see* John McCormick, *Environmental Policy and the European Union, in* INTERNATIONAL ORGANIZATIONS AND ENVIRONMENTAL POLICY 37 (Robert v. Bartlett et al. eds. 1995 [hereinafter BARTLETT ET AL]) at 46-47. On the relationship between NGOs and some European governments, *see* NEWELL, *supra* note 120, at 134.

[131] CLIMATE ACTION NETWORK INTERNATIONAL NGO DIRECTORY 2000.

[132] MANNERS, *supra* note 41, at 68.

[133] Grubb&Yamin, *supra* note 81,at 263; and Ott, *supra* note 54, at 283-284.

their regular work,[134] and U.S.-CAN currently has one half-time staff member,[135] CAN Europe currently has a permanent staff of 7 people.[136] This is partly due to the fact that CAN Europe receives government funding[137] - while U.S.-CAN relies on foundation support -, as well as a practical reflection of the fact that, in contrast to the heavy representation of NGOs in Washington, D.C., the European NGO community had been seriously underrepresented at the seat of EU power in Brussels. The greater number of staff members has enabled CAN Europe to engage in substantive work much more than other CAN offices, which cannot easily perform such tasks in addition to coordinating regional NGOs.[138]

Other than CAN Europe and a handful of staffers from the big international NGOs located in Brussels or nearby, European NGOs are primarily located in the different European countries. The local versus regional interaction in Europe constitutes the backbone of NGO activity there. In that sense, a strong local presence—in addition to a limited but targeted coordinating presence in Brussels— has over the years contributed to a high level of NGO pressure in Europe and, arguably, higher overall effectiveness[139] when compared to other regional CAN activities.[140]

---

[134] Duwe, *supra* note 125, at 177.

[135] Personal interview with Joanna Krinn, U.S.-CAN (Dec. 11, 2001).

[136] Staff, *available at* <http://www.climnet.org> (visited Mar. 5, 2002).

[137] It is not uncommon in Europe for NGOs to receive partial financial support from public authorities including the State. This is partly due to the fact that, unlike in the U.S., private foundations are less predominant in Europe, and the State has traditionally a bigger role—including a financial role—in society in general.

[138] Personal interview with Joanna Krinn, U.S.-CAN (Dec. 11, 2001). CNE staff includes energy specialists and a climate policy researcher, CNE Staff, *available at* <http://www.climnet.org> (visited Dec. 11, 2001).

[139] *See also* Axel Michaelowa, *Impact of Interest Groups on EU Climate Policy*, 8 European Environment 152-160 (1998). A recent poll confirmed a trend that "Europeans continue to trust NGOs twice as much as government and substantially more than corporations or the media." *See* Edelman PR Worldwide, *Second annual survey of U.S. and European Opinion Leaders* (on file with authors).

[140] Comparing briefly CAN Europe with U.S.-CAN, the latter has focused primarily on coordinating those NGOs with offices in Washington, D.C. As a result, there is a high level of coordination—and arguably effectiveness—of NGO activity in the U.S. capital (Personal interview with Joanna Krinn, U.S.-CAN (Dec. 11, 2001), which is primarily aimed at the Federal Government.

E. MEDIA AND PUBLIC

Public attention plays a central role in determining the EU's political agenda. High levels of public concern about environmental problems have repeatedly prompted governments to address them, while in the absence of popular interest, they are considerably less likely to take action. Arguably, both the conclusion of the UNFCCC in time for the Rio Summit in 1992 and of the Kyoto Protocol were to a large degree the result of substantial public pressure.[141]

However, the attitude of the public towards environmental policies varies in different EU Member States. It is an important element that has influenced the positions individual states have adopted in environmental matters in general and climate policies in particular.[142] The strength of the Green movement, which in the 1990s, for example, was strong in Germany and rather weak in France, can serve to some extent as an indicator of public opinion, and success of a Green Party in elections has at times caused a government to change its position.[143]

Public opinion is largely influenced by the media. Media coverage directs the public's attention to certain issues and consequently has a bearing on the government agenda. Since the media is the primary source of information on climate change for most people, it also shapes the way they perceive the problem and possible solutions.[144]

In recent years, major media sources have reported on various aspects of climate change on a very regular basis.[145] Large numbers of journalists attend the COPs; almost 1,000 were accredited at COP-6 (2000) in The Hague in comparison to little more than 2,000 members of Party delegations.[146]

---

[141] NEWELL, *supra* note 120, at 70-1, 76, 85-6.

[142] MANNERS, *supra* note 41, at 70-1.

[143] *See* NEWELL, *supra* note 120, at 70 for acid rain; *and* Oberthür 1999, *supra* note 84, at 641, 648-650 for ozone politics, both referring to Germany.

[144] NEWELL, *supra* note 120, at 71-72; Priya A. Kurian, *The U.S. Congress and the World Banks, in* BARTLETT ET AL, *supra* note 130, at 103, 106-107

[145] Carpenter, *supra* note 110, at 313, 321-5. Lists of recent reports are available e.g. in the IISD's bi-weekly news summary "Climate News", *available at* <http://www.cckn.net/climate_ news.asp> (visited Dec. 12, 2001), and – with a more European focus – on the CNE website, *available at* <http://www.climnet.org/news/news.htm> (visited Dec. 12, 2001).

[146] List of Participants, FCCC/CP/2000/INF.2, www.unfccc.int (visited Dec. 11, 2001).

Since COP-3 (1997), newspaper articles have been posted and distributed at the conference center and handed to government officials,[147] providing negotiators with an immediate public feedback. On the other hand, media interest fades in the time periods between major conferences,[148] and the way reporters have presented the subject has in certain respects added to confusion and lack of knowledge concerning important aspects of climate change. Factual errors, an overemphasis of the findings of skeptical climate scientists, exaggeration of abatement costs and a focus on singular extreme events rather than structural problems have resulted in widespread misunderstandings about the science, the causes of climate change and possible responses.[149] This applies to European as well as U.S. media.[150]

IV. DOES THE EU HAVE A DOMESTIC CLIMATE CHANGE POLICY?[151]

A. POLICIES AND MEASURES AT THE EU LEVEL

The EU has demonstrated itself as a leader on the issue of climate change (Section V, below), but how is its domestic record of accomplishment? This chapter briefly reviews the track record of the European Union's climate policy in the last decade and its likely course in the next one. We will not focus on Member States' climate strategies and policies as this would fall beyond the scope of this paper.[152] First, the regulatory

---

[147] Carpenter, *supra* note 110, at, 313, 319.

[148] *See* for an analysis of media coverage in Portugal Suraje Dessai, Kevin Branco, Miguel de França Doria, *Climate Change and Media in Portugal: Preliminary Results*, poster presented at the International Conference on Climate Change: Science, Economics and Politics, Lisbon: November 3-4, 2000 (on file with authors).

[149] NEWELL, *supra* note 120, at 79-86 with many examples.

[150] *Id.* at 69 and references in 68-95.

[151] This section is partly based on Suraje Dessai and Nuno Lacasta, What has the European Union Been Doing on Climate Change? (2001) (unpublished manuscript on file with autors) [hereinafter Dessai & Lacasta 2001].

[152] For several analyses of different Member States plans and policies, *see* e.g. JOHN GUMMER AND ROBERT MORELAND, THE EUROPEAN UNION & GLOBAL CLIMATE CHANGE, A REVIEW OF FIVE NATIONAL PROGRAMS, PEW CENTER ON GLOBAL CLIMATE CHANGE, 2000 [hereinafter GUMMER & MORELAND]; Heather Broadbent, *Study of the Dutch, French and British Climate Change Programmes*, Euronatura Working Paper 1/201 (January 2001), available at: <www.euronatura.pt> (visited Oct. 10, 2001) [hereinafter Broadbent]; Suraje Dessai and Axel Michaelowa, *Burden sharing and cohesion coun-*

framework is described, followed by the more recent initiatives, including the European Climate Change Program (ECCP) and a framework directive for greenhouse gas emissions trading within the European Community.

As explained throughout this paper, EU policy is the result of the complicated interaction between various interest groups compounded by intra and inter-Member States politics.[153] Climate policies in Europe have traditionally been divided into environmental policies and energy policies.[154] By 1998, the EU had some of the most progressive environmental policies in the world.[155] Yet, just as one may consider EU environmental policy as a success in general, one may call EU energy policy a failure.[156]

As explained in Section II, in the absence of a clearly defined area of exclusive EU competence on climate change, it is extremely difficult to isolate EU and Member States' obligations. Furthermore, comprehensive international environmental agreements (such as the UNFCCC or the Kyoto Protocol) are not easily related to the system of segregated legal bases prescribed by the EU treaties.

"Initial steps to get climate policy in the EU agenda include a 1986 Resolution from the Parliament and Communications from the Commission in 1988 and 1989."[157] The Fourth Action Program on the Environment adopted in late 1987 and covering the years 1987 to 1992,[158] made no mention of climate change except as a subject for further research.[159] Momentum

---

tries in European climate policy: the Portuguese example, 3/1 Climate Policy 327-341 (2001) [hereinafter Dessai & Michaelowa]; Nick Eyre, *Carbon Reduction in the Real World: How the UK will Surpass its Kyoto Obligations*, 1/3 Climate Policy 309-326 [hereinafter "Eyre"]; and Joachim Schleich et al., *Greenhouse Gas Reductions in Germany – lucky strike or hard work?*, *id.* at 363-380 [hereinafter Schleich et al].

[153] *See* section IV, above.

[154] *See* Wettestad, *supra* note 113, at 27-35.

[155] At its founding in 1957, the EU had no environmental policy, no environmental bureaucracy, and no environmental laws. When, in 1973, the EU began systematically to address environmental concerns there was little expectation that the environment would develop into one of the largest areas of common activity. *See* Andrew Jordan, *The implementation of EU environmental policy: a policy problem without a political solution?*, 17 ENVIRONMENT AND PLANNING C: GOVERNMENT AND POLICY, 69-90 (1999)[hereinafter Jordan].

[156] Dahl, *supra* note 36, at 203-220.

[157] *See* Wettestad, *supra* note 113, at 27.

[158] *See* EEC Fourth Environmental Action Programme (1987-1992), O.J. (C328) 7.12.1987.

[159] *See* Haigh, *supra* note 3, at 161.

emerged, however, when the Council of Energy and Environment ministers in 1990 adopted a political agreement to stabilize CO_2 emissions in the EU as a whole at 1990 levels by the year 2000.[160] Closer to the final stages of the negotiations of the Convention in 1992, the Commission proposed to the Council the following climate package of measures to be implemented within the EU in the coming years:[161]

- A framework directive on energy efficiency within the Special Action Program for Vigorous Energy Efficiency (SAVE) program;
- A decision on renewable energies – ALTENER program;
- A directive on a combined carbon and energy tax; and
- A decision concerning a monitoring mechanism for CO_2 emissions.

We will look at each such measure in more detail in the next section.

B. REGULATORY COMPONENTS: WATERED DOWN?

The SAVE program was designed to improve energy efficiency within the EU in order to reduce CO_2 emissions and improve security of supply. The program was actually launched in 1987, but only in October 1991 did the Council of Energy Ministers manage to approve it.[162] At that stage, the program emphasized the adoption and implementation of several existing Directive proposals on energy efficiency standards across a range of sectors from power generation to buildings, vehicles and household appliances.[163] But by the time it had been

---

[160] *See* European Community Conclusions on climate change. Council of Environment Ministers, European Community, October 1990.

[161] *See* Community strategy to limit carbon dioxide emissions and to improve energy efficiency, COM(92) 246. Given the Commission's traditional desire to expand its competence, it chose the path of trying to develop a complete and ambitious package of measures to be agreed together (*See* Haigh, *supra* note 3, at 164.

[162] Decision 91/565/EC [7] established a program to promote energy efficiency in the Community (the SAVE program); O.J. (L 307) 08.11.1991, at 34.

[163] It was estimated that the program could lead to emission reductions of about 3% in the year 2000 (Wettestad, *supra* note 113, at 31-32).

adopted in 1993, all the legislative proposals had either been watered down or removed entirely. SAVE was turned into a framework directive merely laying out general principles for action to guide Member States' own programs and measures, short on targets, deadlines and content.[164] Most commentators argue that the program failed due to insufficient funding and a new interpretation of the subsidiarity principle,[165] which led much of its regulatory content to be abandoned or severely diluted. SAVE is considered to have had little impact on energy efficiency in the Member States.[166] The few gains achieved by the first SAVE program were based on the legislative component of the program, which is missing from the SAVE II framework.[167] Instead SAVE II, which was adopted in December 1996,[168] intends to rely on voluntary agreements with equipment manufacturers on labeling and energy standards. The SAVE II proposal includes only a modest target to improve the overall efficiency on energy use in the EU by one per cent over the next five years, and has been subject to significant budgets cuts that undermine its ability to meet its self-declared goals.[169]

The two technology-oriented programs, the THERMIE[170] and the JOULE[171] programs, are intended to bring about a 10-20 per cent reduction in CO_2 emissions between 2010 and 2020. A recent evaluation of THERMIE indicated that it had made an impact on market shares for energy efficiency technology, but clean coal funding under the program has been criticized by environmental groups for displacing focus on renewables, and for making only a small contribution to lowering CO_2 emissions.[172] JOULE and THERMIE have been merged into

---

[164] *See* WYN GRANT, DUNCAN MATTHEWS & PETER NEWELL, THE EFFECTIVENESS OF EUROPEAN UNION ENVIRONMENTAL POLICY, MACMILLAN PRESS, LONDON (2000), Section III [hereinafter GRANT ET AL].

[165] *Id.* Section III and note 5.

[166] Collier as quoted by Wettestad, *supra* note 113, at 32.

[167] Decision 96/737/EC established the new multi-annual SAVE II program to continue and strengthen the action of the original SAVE program. *See* Council Decision 96/737/EC, O.J. (L335) 24.12.96.

[168] The originally proposed 150 million ECU budget of SAVE II was cut to 45 million by the Energy Council in May 1996. *See* Wettestad, *supra* note 113, at 32).

[169] *See* GRANT ET AL, *supra* note 164, Section III.

[170] For the strengthening of existing measures to promote the dissemination of better energy conversion and use technologies.

[171] Focusing on energy research and development.

[172] *See* GRANT ET AL, *supra* note 164, Section III.

ENERGIE, a subprogram on energy of the thematic program "Energy, Environment and Sustainable Development" within the EU Fifth Framework Program for Research, Technological Development and Demonstration (1999-2002). The ENERGIE Program is organized principally around two key actions: Cleaner Energy Systems, including Renewable Energies, and Economic and Efficient Energy for a Competitive Europe supplemented by coordination and cooperative activities of a sectoral and cross-sectoral nature. With targets guided by the Kyoto protocol and associated policies, ENERGIE's integrated activities are focused on creating and applying new solutions which achieve balanced improvements to Europe's energy, environmental and economic performance and thereby contribute towards a sustainable future for Europe's citizens.[173]

Established in March 1993, the ALTENER[174] Directive on "the promotion of renewable energy sources in the EU" followed a similar fate to SAVE. Its scope and content were considerably reduced and its budget deemed insufficient.[175] It contained specific targets but no substantial tools for implementation. ALTENER II was funded with a budget of merely twenty-two million ECU (the Parliament and Commission had proposed more than thirty million[176]) for 1998-1999.[177] A Commission Paper published in December 1997 called for a doubling of the proportion of EU energy needs supplied by renewables to twelve percent by 2010.[178] Opposed by the UK, France and Germany, the Council accepted the Commission's target only by way of guidance making it a voluntary target for Member States.[179] Some progress was achieved in September 2001,

---

[173] *See* http://europa.eu.int/comm/energy/en/prog5.htm, (visited Mar. 4, 2002).

[174] Council Decision 93/500/EEC on the adoption of a Program for the Promotion of Renewable Energy Sources, O.J. (L 235) 18.9.1993, at 41).

[175] *See* Wettestad, *supra* note 113, at 32.

[176] *Id.* at 32.

[177] Council Decision concerning a multi-annual program for the promotion of renewable energy sources in the Community (Altener II), 98/352/EC, O.J. (L159) 03/06/1998, at 53.

[178] Communication from the Commission: Energy for the future: Renewable Energy Sources - White Paper for a Community Strategy and Action Plan, COM(97)599 final. According to the White Paper, renewables currently supply just 5.3 per cent of EU energy consumption.

[179] *See* GRANT ET AL, *supra* note 164. Efforts to promote renewables are also undermined by the continued use of subsidies to fossil fuels. A Greenpeace report on 'Energy subsidies in Europe' showed that more than 90 per cent of direct subsidies from Euro-

when the Energy Council adopted the Directive on the promotion of electricity produced from renewable energy sources in the internal electricity market.[180] After more than a year under discussion, the Directive was weakened in a number of areas compared to the draft Directive released by the Commission.[181]

Nonetheless, the adopted Directive requires that the EU double the use of renewables in the energy supply.[182] The Directive includes indicative targets for individual members' states, which will be required to draft and adopt legislation to achieve these targets.[183] The renewables Directive was clearly a positive step, but it is still uncertain how the Member States will implement it, since the Directive leaves much scope for interpretation. Progress will monitor the Directive's progress and may, as a result, make further proposals, including for mandatory targets.

As this brief review has shown, regulatory measures have been consistently bogged down either through the principle of subsidiarity or lack of funding, both demonstrating overall lack of political will to act at the EC level. Furthermore, poor implementation and regulatory failure remain a problem within the EU.[184] This gap may partly be attributed to the fact that it is the Environment Council that makes climate policy announcements and other Council formations, e.g. Energy, (as well as the Member States) that undertake the implementation of relevant legislation. Some of the measures that have been proposed to close the implementation gap include making use of non-regulatory instruments such as taxes, tradable permits, and voluntary agreements. We now turn to those policy instruments and analyze the EU's attempt to introduce them.

---

pean governments to the energy industry go to fossil fuels. Kirsty Hamilton, *The Oil Industry and Climate Change* 14 (Greenpeace International 1998).

[180] Directive on the promotion of electricity produced from renewable energy sources in the internal electricity market, 2001/77/EC, O.J. (L.283) 27.10.2001, at 33.

[181] Energy for the future: renewable sources of energy, COM(97)599 final; also known as White Paper for a Community Strategy and Action Plan.

[182] Article 3 of *supra* note 180.

[183] *Id.*

[184] *See* Jordan, *supra* note 155, at 69.

C. THE ENERGY/CARBON TAX AND FISCAL MEASURES: TOTAL FIASCO?

In 1992, the European Commission proposed a Directive for the introduction of a tax on all energy products, excluding renewables, based 50% on energy content and 50% on the carbon content of fuels.[185] The objective was to improve energy efficiency and favor fuel substitution towards products emitting less or no CO_2. It was proposed to introduce the tax in steps. After seven years the rates would have reached 0.7 ECU/GJ and 9.4 ECU/CO_2, equivalent to $10 per barrel. Graduated reductions and conditional exemptions from the tax were to be applied for energy intensive firms.[186] The tax proposal was estimated to lead to a reduction in CO_2 emissions of around 10% ten years after implementation, compared to a business-as-usual scenario. Depending on the business-as-usual scenario, this would imply no growth or a slight reduction in CO_2 emissions compared to 1990 levels. The tax was intended to be levied in addition to existing excise duties.

No agreement was ever reached in the Council, where this proposal encountered strong opposition from some countries and transnational industry. The "cohesion countries" (i.e., Spain, Greece, Portugal and Ireland)[187] could only accept the proposal in return for additional structural funding, and France argued for a pure carbon tax in order to protect its nuclear industry.[188] Using the subsidiarity principle, the UK argued that it would be more appropriate to develop such a tax at the national level.[189] The tax proposal has been halted ever since. The 1994 decision of the Council in Essen does no more

---

[185] Proposal for a Council Directive introducing a tax on carbon dioxide emissions and energy, COM(92)226 final.

[186] *Id.*

[187] The Treaty of Maastricht created the so-called "Cohesion Fund" aimed at financing infrastructure and environmental projects in those Member States where the gross national domestic is less than 90% of the EU average. Greece, Ireland, Portugal and Spain are currently within that threshold, and are thus knows as "cohesion" Member States. *See* Maastrich Treaty, *supra* note 3.

[188] *See* Skjærseth as quoted by Wettestad, *supra* note 113, at 29.

[189] Hence, the UK's objection to a CO_2 tax did not concern the idea of fiscal measures in the climate change package as such but rather tax harmonization at the EU level. Taxation for the UK is the responsibility of the Member States (Haigh, *supra* note 3, at 165; Dahl, *supra* note 36, at 217).

than enable Member States to apply a carbon/energy tax "if [they] so desire."[190]

The idea of a CO_2 tax has not been abandoned, but proposals for other, more indirect avenues have been discussed as well.[191] Former environment Commissioner, Ritt Bjerregaard, stated publicly that the EU could not avoid a carbon/energy tax if it intends to reduce CO_2 emissions after the year 2000 because energy prices are currently too low to stimulate improvements in efficiency.[192] The EU-wide carbon/energy tax has the potential to reduce greenhouse gas emissions considerably, but will probably remain on the "shelf" because of the requirement for consensus in EU fiscal environmental policies. In the meantime, Member States should address the issue, as the UK has done, with the introduction of the climate change levy on April 2001. Furthermore the development of a EU-wide emissions trading scheme might relieve the pressure from the development of taxation initiatives, especially if trading leads to significant emission reductions within the EU.

D. MONITORING MECHANISM FOR GREENHOUSE GASES: SOME HOPE?

The only substantive piece of EU legislation to have been adopted by the Council so far was the establishment of a monitoring mechanism for greenhouse gases. On June 24, 1993 the Council of Environment Ministers adopted Decision 93/389/EEC[193] establishing a monitoring mechanism in the Community for anthropogenic CO_2 and other greenhouse gas emissions not controlled by the Montreal Protocol. The monitoring mechanism serves a double purpose of monitoring progress towards the stabilization of CO_2 emissions at 1990 levels by the year 2000, and towards the fulfillment of the Community's joint commitments under the 1992 Climate Convention. The Decision requires each Member State "to devise, publish, implement and periodically update national programs for limit-

---

[190] Haigh, *id.*, at 165-166.

[191] Wettestad, *supra* note 113, at 29.

[192] *See* Dessai & Lacasta 2001, *supra* note 151, at 9.

[193] Council Decision 93/389/EEC for a monitoring mechanism of Community CO2 and other greenhouse gas emissions, O.J. (L 167) 9.7.1993, at 31.

ing their anthropogenic emissions of CO_2."[194] The Commission annually evaluates the national programs in order to assess whether progress in the Community as a whole is sufficient to attain the stabilization objective. For the performed evaluations[195] under this Decision, the Commission concluded that the information provided was still not sufficient to evaluate progress towards the Community stabilization target in a satisfactory way.[196] Compliance with Decision 93/389 has not been impressive because the annual assessments, a key part of the Decision, seem to have been virtually ignored.[197]

Decision 93/389/EEC was revised in April 1999,[198] to allow for the updating of the monitoring process in line with the inventory requirements incorporated into the Kyoto Protocol. The amendment strengthened national program requirements on policies and measures, which should include (a) information on actual progress and (b) information on projected progress. Member States are required to submit by December 31 inventory data for the two previous years, any updates of previous years (including the base year 1990) and their most recent projected emissions for the years 2005, 2010, 2015 and 2020. As many commentators have argued,[199] the term "monitoring mechanism" does not convey its full potential importance, which has taken on a particular relevance with the burden-sharing agreement under the EU "bubble" (See section V below). This mechanism could play a critical role in ensuring

---

[194] *Id.* Article 2.1. *See* also Joy Hyvarinen, *The European Community's Monitoring Mechanism for CO_2 and other Greenhouse Gases; the Kyoto Protocol and other Recent Development*, 8 RECIEL, 191, 197 n.2 (2000) [hereinafter Hyvarinen].

[195] The first evaluation report, which was issued on 10.03.1994, covers the period 1990-1993. *See* Report from the Commission under Council Decision 93/389/EEC, *First Evaluation of Existing National Programs under the Monitoring Mechanism of Community CO_2 and Other Greenhouse Gas Emissions* COM(94)67 final, 10.03.1994 at 6. The second evaluation report was issued on 14 March 1996. *See* Report from the Commission under Council Decision 93/389/EEC, *Second Evaluation of Existing National Programmes under the Monitoring Mechanism of Community CO_2 and Other Greenhouse Gas Emissions* COM(96)91 final, 14.03.1996, at 1.

[196] *Id.*

[197] *See* Hyvarinen supra note 194, at 193.

[198] Council Decision 99/296/EC amending Decision 93/389/EEC for a monitoring mechanism of Community CO2 and other greenhouse gas emissions, O.J. (L 117) 05.05.1999, at 35.

[199] *See* e.g. Haigh, *supra* note 3; and Hyvarinen, *supra* note 194.

that the EU and Member States stay on track towards their targets under the Convention and the Kyoto Protocol.

The first progress report under Decision 99/296/EC was released in November 2000.[200] The Commission saw good progress in Member State's reporting on emission inventories and some progress with regard to national policies/measures and projections. However, much remains to be done with regard to the completeness, accuracy and comparability of the data, especially those on projections. The report concluded that:

- The EU's greenhouse gas emissions fell by 2.5% between 1990 and 1998;
- The majority of Member States are far away from their target paths towards Kyoto; the transport sector being the fastest-growing emission sector;
- "Business-as-usual" projections suggest that existing policies and measures would at best reduce overall EU emissions in 2010 by 57 Mt CO_2, taking emissions to 1.4%, or at worst 0% below the 1990 level;
- Additional policies and measures identified by Member States are projected to yield further reductions close to 7% below 1990 levels;
- Projections have considerable uncertainty because of the lack of quantified data on additional measures, lack of comparability of methodologies used and uncertainty over implementation of the policies and measures.[201]

This means the EU as a whole is expected to have met its commitment under the Convention, i.e. to stabilize emissions at 1990 levels by the year 2000. However, this positive evolution is more a "fortuitous" result of the economic collapse and modernization in eastern Germany and the unintended consequence of "dash for gas" resulting from the privatization in the UK's energy sector.[202] The 1999 Landfill directive[203] is also

---

[200] Report under Council Decision 1999/296/EC for a monitoring mechanism of Community greenhouse gas emissions, COM(2000)749, final 22.11.2000.

[201] *Id.*

[202] Natural gas particular emits less CO_2 than coal or oil. *See* GRUBB ET AL, *supra* note 11, at 81.

expected to have a considerable impact on the reduction of overall emissions.[204] However, compliance with the ambitious Kyoto target of –8% will prove much harder for the EU and its Member States. The Monitoring Mechanism report concludes by arguing that in view of the difficulties that the Member States face in meeting their Kyoto commitments under the Burden Sharing Agreement, common and coordinated policies and measures at EU level will become an increasingly important element to supplement and reinforce national climate strategies. The Commission has proposed policies and measures, e.g. on energy taxation, renewables, energy efficiency, vehicle emissions and landfills, and intends to intensify such ongoing work through the European Climate Change Program (ECCP), which is further discussed below. Results from the ECCP will form the basis for concrete policy proposals in the areas of energy, transport, industry and agriculture and for an internal EU emissions trading scheme.

E. VOLUNTARY AGREEMENTS: IS EUROPE GETTING THEM RIGHT?

Environmental voluntary agreements have been emphasized in the EU Sixth Environment Action Program.[205] During the 1990s, they received increased attention as an alternative or supplement to traditional policy instruments, particularly in the field of energy efficiency. Voluntary Agreements can more specifically be defined as "commitments between authorities and target groups setting forth environmental objectives based on voluntary participation or absence of sanctions as part of the commitments themselves."[206] In the EU context, the promotion of agreements with industry can be seen as part of the effort to broaden participation and the range of policy instruments, and thus implement the concept of "shared responsibility" empha-

---

[203] 1999/31/EC Council Directive 1999/31/EC of Apr. 26, 1999 on the landfill of waste, O.J. (L 182) 16.07.1999, at .1

[204] *See* Christoph Bail, Simon Marr and Sebastian Oberthür, Klimaschutz und Recht (2002) (manuscript on file with authors).

[205] *See* Wettestad *supra* note 113, at 37.

[206] *See* Skjærseth as quoted by Wettestad, *id.* at 37-38.

sized in the 1992 Fifth Action Program and the 'wider constituency' proposed in the Sixth Environment Action Program.

Voluntary Agreements are widely applied in EU Member States, but few at EU level.[207] Recently, the European Commission and the European Automobile Manufacturers Association[208] signed a Voluntary Agreement to reach a 25% reduction of CO_2 emissions from passenger cars by 2008.[209] Agreements have been reached with the Japan Automobile Manufacturers Association (JAMA) and the Korean Automobile Manufacturers Association (KAMA).[210] Voluntary Agreements, however, are not free of problems. Besides the difficulty of separating their specific effects from more general societal factors and processes, Voluntary Agreements are also likely to work best in "benign" conditions; with energy efficiency as a relevant climate policy example.[211] As an April 2000 Commission Recommendation noted, "The agreement with the auto industry is an interesting development, but it is too early to judge whether this was a regulatory breakthrough or a regulatory cop out."[212]

F. THE EUROPEAN CLIMATE CHANGE PROGRAM

The Environment Council of October 1999 urged the Commission to put forward a list of priority action on climate change as early as possible in 2000 and to prepare appropriate proposals in due course.[213] In response, the European Climate Change Program (ECCP) was created.[214] The driving force behind the ECCP is the uncertainty and difficulties Members

---

[207] For a review of voluntary agreements in Member States, *See* OECD, *Voluntary Approaches for Environmental Protection in the European Union* (Dec.10, 1998), ENV/EPOC/GEEI(98)29/FINAL.

[208] *See* ACEA and European Commission, CO_2 emissions from cars, The EU Implementing the Kyoto Protocol (1998).

[209] *See* Wettestad, *supra* note 113, at 39.

[210] Commission Recommendation of Apr. 13, 2000 on the reduction of CO2 emissions from passenger cars (KAMA), O.J. (L 100) 20.04.2000, at 55. Commission Recommendation of Apr. 13, 2000 on the reduction of CO2 emissions from passenger cars (JAMA), O.J. (L 100) 20.04.2000, at 57.

[211] *Id,* at 38.

[212] *Id*.

[213] Council Conclusions on a Community strategy on Climate Change, Doc. 11654/99, Luxembourg Oct. 12, 1999.

[214] Communication from the Commission on EU policies and measures to reduce greenhouse gas emissions: Towards a European Climate Change Programme (ECCP), COM(2000)88 Final 8.3.2000 [hereinafter ECCP Communication].

States will face in fulfilling their commitments.[215] Under current policies and measures the overall EU emission reduction in 2010 will lie somewhere between –1.4% and 0%. The ECCP emerged as a means of reinforcing common and coordinated policies and measures at the Community level, in the face of consistent weakening or altogether dropout of Commission proposals. These measures are supplemental to actions taken by Member States in the fulfillment of their Kyoto targets. The ECCP has taken a multi-stakeholder approach[216] in the preparation of the proposals to reduce greenhouse gas emissions. The scope of the program is limited to achieving the Kyoto target of –8%, but in the mid and long-term perspective, the ECCP will address issues such as adaptation; international cooperation through capacity-building and technology transfer; research/observation; demonstration of efficient; and clean technologies and training and education.[217]

The ECCP established a Steering Committee[218] to coordinate six Working Groups:

1. Flexible mechanisms
2. Energy supply
3. Energy consumption
4. Transport
5. Industry
6. Research

Some Working Groups have sub-groups. The Commission's role is to coordinate and facilitate the different Working Groups in this innovative integration exercise. The results of the "Economic Evaluation of Sectoral Emission Reductions Ob-

---

[215] For a review of some Member State's climate programs, *See* Eyre; Scleich et al.; GUMMER & MORELAND; Broadbent; and Dessai & Michaelowa, all *supra* note 152.

[216] Which has brought together relevant stakeholders such as representatives of the Commission, the Member States, industry and the NGO community. *See* ECCP Communication, *supra* note 214.

[217] *Id.*

[218] Composed of all Commission services that take part in the ECCP.

jectives for Climate Change" [219] study were used as inputs for each Working Group, so they have to be briefly mentioned. This EU-commissioned report which identifies a least-cost allocation of objectives for different sectors and greenhouse gases, would allow the EU to reach its Kyoto target.[220] With caveats and limitations, the study combines a "top-down" and a "bottom-up" methodology to understand different cost-effective greenhouse gas mitigation options. The study results show that instead of having each sector reduce its emissions by 8%, some sectors need to reduce their emissions by more than 8%: energy supply (11%), fossil fuel extraction (46%), industry (26%), agriculture (8%) and waste (28%). According to this sectoral least-cost allocation approach compliance costs are predicted to be 0.06% of EU gross domestic product.[221] A number of other studies provide estimates in a similar range of up to 0.3%.[222] According to this study the six most cost-effective ways for the EU to reach its Kyoto target are:

1. Decarbonization of energy supply:
    a. Further switching from coal to gas;
    b. More efficient generation of power (e.g. increasing the share of Combined Heat and Power);
    c. Increase in the use of renewable energy (notably biomass and wind energy).
2. Improvement of energy efficiency, particularly in industry, households (retrofitting) and services sector.
3. Further reduction of nitrous oxide from the adipic acid industry and implementation of reduction options in the nitric acid industry.
4. Reductions of methane emissions in coal mining, oil and natural gas, and waste and agriculture sectors.

---

[219] Kornelis Blok, David de Jager and Chris Hendriks. *Economic Evaluation of Sectoral Emission Reduction Objectives for Climate Change – Summary Report for Policy Makers, ECOFYS Energy and Environment,* March 2001 [hereinafter Blok et al].

[220] *Id.* at 1. The intention was to identify a least-cost allocation so that the cost of production of energy and other goods would increase as little as possible.

[221] Had the allocation been done at a Member State level instead of EU-wide, the compliance costs would more than double (*Id.* at iv).

[222] European Commission Proposal for ratification of the Kyoto Protocol by the European Community COM(2001)579 final;

5. Reduction of fluorinated gases in specific applications, e.g. industrial processes, mobile air conditioning and commercial refrigeration.

6. Energy efficiency improvement measures in the transport system.[223]

The results from this study served as the basis for discussion of the ECCP Working Groups, which came up with measures based on criteria of cost efficiency, emission reduction potential, time horizon and political acceptability. Each Working Group met several times in 2000 and 2001. The Commission was then urged to develop concrete policy proposals that have been presented as a package of measures in four areas: cross-cutting, energy, transport and industry (see table 2, below).[224]

Table 2: ECCP Policy Proposals

Cross Cutting Issues
- Promoting effective implementation of the Integrated Pollution Prevention and Control Directive
- Proposal for a Directive on linking project-based mechanisms including Joint Implementation and Clean Development Mechanism to EC emissions trading scheme
- Proposal for a review of the monitoring mechanism
Energy Issues
- Proposal for a Framework Directive for minimum efficiency requirements for end-use equipment
- Proposal for a Directive on energy demand management
- Proposal for a Directive for the promotion of Combined Heat and Power
- Non-legislative proposals: Initiatives on increased energy-efficient public procurement; Public awareness campaign and campaign take-off

[223] Blok et al, *supra* note 219, at iv-v.

[224] *See* European Commission Communication on the implementation of the first phase of the ECCP COM(2001)580 final.

Table 2 Continued: ECCP Policy Proposals

Transport
- Proposal for shifting the balance between modes of transport
- Proposal for improvement in infrastructure use and charging
- Promotion of the use of biofuels for transport
Industry
- Proposal for a Framework Directive on fluorinated gases

Without scrutinizing each item individually, the climate package is ambitious and worthy of the "leader" of the climate regime. Nonetheless, according to the Commission, the emissions reduction effects of these measures are unlikely to meet the Kyoto targets, thus the need to examine additional measures from the on-going ECCP process. After a decade of weakened proposals, but at the same time building on them, European climate policy is finally starting to shape up. However, all these efforts will be in vain if the Council does not quickly adopt and implement these proposals. Only then, will the EU be able to show directional leadership, i.e., leadership by example.[225]

G. THE COMMISSION PROPOSAL FOR AN EMISSIONS TRADING DIRECTIVE

In 1999 the European Commission suggested that the best way for the Community and its Member States to get acquainted with the Kyoto mechanisms would be to develop their own emissions trading scheme.[226] A paper[227] on greenhouse gas emissions trading within the EU was released in 2000 for wider consultation with stakeholders. Ninety comments – overwhelmingly supporting emissions trading – were received from governmental organizations, businesses and NGOs throughout Europe.[228] The proposal for a framework directive

---

[225] GUPTA & GRUBB, *supra* note 4, at 21

[226] Communication from the Commission to the Council and the European Parliament - Preparing for Implementation of the Kyoto Protocol COM(1999)230, final.

[227] Green Paper on greenhouse gas emissions trading within the European Union, COM(2000)87, final [hereinafter Emissions Trading Greenpaper].

[228] *See* <http://europa.eu.int/comm/environment/docum/0087_en.htm seen in 23 Jan.

was released just before COP-7 (2001) as part of the EU climate package. While neither industry nor NGOs seemed fully content with the proposal, the Commission appears to have taken a middle-ground position, which we briefly describe next.

Beside providing experience in a scheme that will later be used internationally,[229] an internal emissions trading system will enhance the cost-effectiveness of emission reductions by making emission reductions as cheap as possible wherever they may occur in the Community. The Commission proposed a cap-and-trade approach covering heavy industry sectors across the EU. This proposal revolves around two key concepts: greenhouse gas "permit" and greenhouse gas "allowance." All installations under the scheme will be required to have permits that will lay down monitoring, reporting and verification requirements in respect of direct emissions of greenhouse gases specified in relation to those activities. Member States will allocate allowances to all installations holding permits that can then be transferred to other companies. "Each year, companies must submit for cancellation a number of allowances that corresponds to their actual emissions. If they do not have enough allowances, sanctions will be imposed on them."[230] The scheme will run between 2005 and 2007, before the Kyoto Protocol's first commitment period starts. The rationale of using emissions trading is based on the fact that it provides certainty about the environmental outcomes.[231] However, under this proposal, the Member States rather than the EU will decide on initial allocations. The Monitoring Mechanism in conjunction with national transaction registries will perform the tracking of traded allowances. Only carbon dioxide emissions will be covered in the beginning of the scheme because they represent 80% of the Community's greenhouse gas emissions. Penalties for non-compliance have also been envisaged: set at □100 per excess tone or twice the average market price during that period.

02> (visited Dec. 9, 2001).

[229] The difficulties that might result from inconsistent systems within the EU offer a microcosm of the larger challenge. *See* Jacoby & Reiner, *supra* note 58, at 310.

[230] Proposal for a framework Directive for greenhouse gas emissions trading within the European Community, COM(2001)581, final.

[231] *See* Emissions Trading Green paper, *supra* note 227, at 7-9.

Designing an emissions trading scheme is not a trivial task, least of all if one is to consider all stakeholder interests from a variety of Member States. Member States and particular interest groups remain divided in the details of this emissions trading directive.[232]

In the previous sections we overviewed some key aspects of EU policymaking on climate change from an institutional and actors-based perspective, as well as the key developments of a "domestic" EU climate policy. We now turn to an analysis of selected elements in the Kyoto Protocol negotiations between 1992 and the present day i.e. between the signing of the UNFCCC at the Rio Earth Summit (UNCED) and COP-7 in late 2001.

V. THE EU ON SELECTED ISSUES OF THE CLIMATE CHANGE REGIME

Almost ten years have passed since the adoption of the United Nations Framework Convention on Climate Change. A full fledge analysis of the climate change regime, even if specifically focused on the EU track record, is beyond the scope of this paper. We will instead focus on key selected areas of the last ten years of the negotiations by providing illustrations of how the EU positioned itself with regard to such areas. We will draw upon the available literature and official documents, as well as on our own experience—including multiple interactions with many different participants—in taking part in different capacities in the climate negotiations since the mid 1990s. Finally, the select issue-oriented approach to this analysis will be played in the context of the different chronological milestones, which the climate change regime has gone through. These milestones are summarized immediately below.

As mentioned in the introduction,[233] the UNFCCC went through essentially three phases after it was signed. The first phase was between the Convention's signature in 1992 until

---

[232] *See for example* ENDS daily: "EU states divided over climate emission trading", 13/12/2001, available at: www.environmentdaily.com/articles/index.cfm?action=articleref=11232&searchtext=Euistatesdivided&seerchtype=phrase (visited Apr. 12, 2002).

[233] *See supra* table 1.

COP-1 in Berlin, Germany, when Parties decided to strengthen the regime. The next phase corresponded to the Kyoto Protocol negotiations that began in 1995 (COP-1) and culminated with the adoption of the Protocol at COP-3 in Japan in 1997. The third and present phase of over 4 years corresponds to the period in which Parties negotiated the key operational rules and guidelines under the Protocol, which were essential for its ratification and entry into force—which depends on a majority of 55 Parties, including Annex I Parties that account for 55% of this Annex's CO_2 emissions.[234]

Throughout this past decade the EU has remained committed to push for what has generally been perceived as stringent climate change standards,[235] somewhat in contrast with its own domestic track record, as explained in the previous section. If one can summarize the following subsections, the EU positioning was predicated on the ability of the Member States and the Community to jointly fulfill their target obligations under the Protocol. This fact has consistently conditioned the EU position, leading it often to renege or soften other positions in order to secure its primary objective. The following analysis will focus on three issues: policies and measures, emission targets, and developing countries.

A. POLICIES AND MEASURES: EXPORTING DOMESTIC APPROACHES OR INTERNATIONAL PRETEXT FOR DOMESTIC COORDINATION?

A key element in the EU negotiation strategy leading up to Kyoto consisted of a package of so-called "common and coordinated policies and measures," such as a carbon/energy tax or energy efficiency standards, to be adopted by Parties.[236] The EU spent much of its internal discussions and negotiating capital devising and presenting this package to other Parties. The

---

[234] Article 25.1 of the Protocol, *supra* note 6.

[235] *See e.g.* Dessai & Lacasta 2001, *supra* note 151; Yamin, *supra* note 12; and OBERTHÜR & OTT, *supra* note 3.

[236] GRUBB ET AL, *supra* note_11, at 65, define "policies and measures" as "any action which Parties can adopt, either nationally or internationally, to reduce emissions or enhance sinks."

policies and measures text that was eventually agreed upon is much too weak to be claimed as a EU negotiating success.

The discussion on policies and measures effectively began at COP-1 in Berlin (1995). Due to statements from progressive Member States and NGO pressure, the EU managed to forge an alliance, the so-called "green group," with developing countries (minus OPEC[237]) against the JUSSCANNZ countries.[238] This coalition paved the way for the adoption of the Berlin Mandate, which included the EU proposal to call on developed country Parties "to elaborate on policies and measures."[239]

To that effect and throughout 1996 and part of 1997 the EU went through an intense internal process to prepare several lists of policies and measures. This proposal was submitted in mid 1997, and at its core consisted of three annexes containing three sets of policies and measures. Annex I included "[mandatory] Policies and measures common to all [OECD] Parties;" Annex II "Policies and measures to be given high priority by [OECD] Parties and for coordination with other Parties;" and Annex III "National policies and measures to be given priority for inclusion in national programmes of [OECD] Parties ... as appropriate to national circumstances."[240]

This proposal was not, however, further elaborated, thus provoking considerable criticism and "irritation" from other negotiating Parties.[241] In fact, those Parties never showed much interest in following the EU approach of binding policies and measures.[242] The U.S., although initially signaling some

---

[237] Organization of Petroleum Exporting Countries.

[238] JUSSCANNZ was an informal grouping of the following like-minded countries: Japan, United States, Switzerland, Canada, Australia, Norway and New Zealand. After the adoption of the Protocol, with Switzerland dropping out, the remaining members plus Iceland, Russia and Ukraine became to be knows as "Umbrella Group." This more recent formation is especially focused on a coordinated position around the Protocol's flexible mechanisms of joint implementation (Article 6), clean development mechanism (Article 12) and international emissions trading (Article 17). *See* Kyoto Protocol, *supra* note 6.

[239] *See* COP-1 Report, Decision 1/CP.1, *supra* note 23;. This process was called the Ad Hoc Group on the Berlin Mandate or "AGBM." *Id.*

[240] *See* U.N. Doc. FCCC/AGBM/1997/3/Add.1, at 103-123.

[241] Yamin, *supra* note 12, at 53.

[242] Japan (which nonetheless presented its own proposal), the Alliance of Small Island States (AOSIS) and some Central and Eastern European countries in the line up for EU membership conveyed some mild, however unsubstantiated, support. In fact, the EU's first attempt in 1995 to discuss policies and measures had been "met with little enthusiasm." *See e.g.* GRUBB ET AL, *supra* note 11, at 63.

interest in discussing policies and measures in general,[243] came out in favor of targets and timetables at COP-2 (1996). (See next subsection.) It further stated that it "firmly opposed mandatory, harmonized policies and measures that would be imposed upon us in order to reach our target."[244] As a result, the U.S. did not submit any proposal on policies and measures. In the face of such widespread opposition, why did the EU keep insisting on its proposals on policies and measures? Commentators have essentially given two reasons for that fact: the first reason is based on internal EU politics, and the second views the EU position as a default position in the face of U.S. early opposition to targets.

The first reason is that some internal political issues, despite considerable discussion, remained fundamentally unresolved among the Member States and the Commission. As a result, some Member States transferred such considerations to the international level, in the hopes of attracting some support for their views.[245] The EU certainly had a long history of policy coordination in such areas as trade, agriculture and environment. However, as explained in section IV above, by 1997 it had failed to implement meaningful policies and measures on climate change—most notably an energy/carbon tax. As a result, the European Commission in particular might have had an interest in exploring the policies and measures avenue as a way to extend its competences on climate change.[246] An energy/carbon tax, which the Commission had kept under discussion,[247] required harmonization at EU level and was conditional on comparable efforts by the EU's competitors—e.g. the U.S. and Japan.[248] This measure, it was argued, would suggest

---

[243] Which led some EU Member States to believe the U.S. was might be for policies and measures rather than targets. *See* OBERTHÜR & OTT, *supra* note 3, at 105.

[244] Statement of Stuart Eizenstat before the U.S. House International Relations Committee, Washington, DC, 13 May 1998, *as quoted in* OBERTHÜR & OTT, *supra* note 3, *id.*

[245] OBERTHÜR & OTT, *supra* note 3, at 104; and Yamin, *supra* note 12, at 53.

[246] *See supra*, section II, and the discussion therein on climate change as an area of "shared" or "mixed" competence between the EC and its Member States.

[247] As explained *supra* in Section II, Under the EC treaty the Commission retains the exclusive competence to propose EC regulatory measures.

[248] *See* for a discussion on the principle of conditionality of the EU proposal of a energy/carbon tax, Wettestad, *supra* note 113; and Manners, *supra* note 41.

international coordination.[249] In addition to the Commission, smaller Member States also favored the policies and measures approach as a way to ensure that their particularly open economies would not be comparatively disadvantaged should they take domestic action on climate change.[250] However, as Farhana Yamin sharply observes, analyzing the EU international climate change negotiating strategy "the fact that these same countries could not get other EU Member States to agree internally to mandatory [policies and measures] should have alerted them to the difficulty of trying to persuade a more heterogeneous and larger number of states . . ." Rather than seeing itself as a microcosm of the larger group, the EU appeared to have thought of the [Ad Hoc Group on the Berlin Mandate (AGBM)][251] process as having the ability to solve the EU own internal problems.[252]

The second reason advanced by commentators for the EU's insistence on policies and measures is of a tactical nature vis-à-vis the U.S. in particular. At the beginning of the AGBM process the U.S. had not yet signaled a preference for targets and timetables. Some in the EU therefore viewed the proposal on binding policies and measures as a way to put pressure on the JUSSCANNZ in general and on the U.S. in particular to either approach.[253] However, the EU's continued insistence on policies and measures even after the United States' announcement on targets suggests that the strategy did little more than irritate other negotiating partners while proving ultimately to be unsuccessful.

The Protocol text does not contain any reference to binding policies and measures. Article 2 of the Protocol merely lists examples of policies and measures to be taken by each Party "in accordance with its national circumstances."[254] Article 2.4

---

[249] The notion of an internationally coordinated carbon tax had been opposed by most OECD members and OPEC, even in the run-up to the UNFCCC. GRUBB ET AL, *supra* note_11, at 67, even suggest that the EU proposal on policies with its taxation component was "thinly veiled criticism of cheap U.S. gasoline (a topic of transatlantic dispute ever since the first oil shock in 1973) and a red rag to OPEC which viewed such proposals as a conspiracy to grab its oil rent revenues."

[250] OBERTHÜR & OTT, *supra* note 3, at 103-104 and Yamin, *supra* note 12, at 53.

[251] *See supra* note 239.

[252] Yamin, *supra* note 12, at 53. *See also* GRUBB ET AL, *supra* note 11, at 68.

[253] OBERTHÜR & OTT, *supra* note 3, at 105; and Yamin, *id.*, at 52.

[254] *See* Kyoto Protocol, *supra* note 6, Article 2.1.

further opens the door for the future consideration of policies and measures "coordination."[255]

Since the adoption of the Protocol in 1997, policies and measures have barely been in the negotiators' attention span. This is mainly because Parties were busy crafting the Protocol's key operational rules on, e.g., the flexible mechanisms and monitoring, reporting and verification of Parties' emissions.[256] As a result, Parties have limited their activity on policies and measures to the organization of two information-sharing workshops on "best practices."[257] COP-7's decision on this issue called for further information exchange activities.[258]

B. TARGETS AND TIMETABLES: LEADING . . . BUT AS A "BUBBLE"

After the adoption of the Convention and in the run up to the first Conference of the Parties scheduled for Berlin in 1995, it was up to the Alliance of Small Island States (AOSIS) to push for additional reduction commitments. It based such a proposal on the argument that the Convention's stabilization aim would not be sufficient to tackle the challenge of climate change and that the first review of the adequacy of commitments under the Convention's Article 4.2(d) should take place at COP-1.[259] AOSIS thus proposed a draft protocol six months prior to COP-1, which called for a 20% reduction of industrialized countries CO_2 emissions by 2005.[260] At that stage the EU had no clear common position with regard to the strengthening of targets.[261] Germany, however, proposed language that called for further reductions,[262] thereby setting the stage within the

---

[255] *Id.*

[256] *See* COP-7 Report, *supra* note 20.

[257] The first workshop took place in Denmark in April 2000, and the second workshop in Norway in October 2001. *See, respectively,* U.N. Doc. FCCC/SBSTA/2000/2; and FCCC/CP/SBSTA/2001/INF.5.

[258] *See* COP-7 Report, Add. 1, *supra* note 20.

[259] *See* UNFCCC, *supra* note 5.

[260] *See* OBERTHÜR & OTT, *supra* note 3, at 45.

[261] The EU Council of Environmental Ministers of 26.05.1992 had merely indicated a willingness to "confirm their readiness to contribute actively to preparatory work . . . on the review of developed country Parties commitments, and to the early preparation of Protocols under the Convention covering specific issues, in particular the limitation of CO_2 emissions." Available at: http://www.environment.fgov.be/Root/tasks/atmosphere/klim/pub/eu/main_en.htm (visited 12.12.01).

[262] *Id.*

EU. At COP-1 Parties concluded that the Convention's aim was not adequate. They decided to set up the AGBM to strengthen developed countries' (Annex I) commitments, including by means of "quantified limitation and reduction commitments within specified time-frames, such as 2005, 2010 and 2020. . ."[263]

Although the EU submitted a "proposal on the structure of a protocol or another legal instrument,"[264] in late 1995, it was caught in "stymied"[265] internal discussions on the relationship between policies and measures (see previous section) and targets for most of the AGBM. It took a German proposal in October 1995, with the support of a few other Member States, for a 10% reduction of CO_2 emissions by 2005 and a 15-20% reduction by 2010,[266] as well as the U.S. coming forward with its position on targets at COP-2 (1996),[267] for the EU to come to an agreement on a collective proposal in March 1997. This proposal called for developed country's targets and timetables based on a basket of three gases (carbon dioxide, methane and nitrous oxide)[268] and on a flat rate reduction of 15% by 2010 in relation to the 1990 base year.[269]

As stated above, the EU has, during the negotiations of targets, insisted on being permitted to fulfill its obligations jointly – or as a "bubble." This means that the EU and its Member States have a common target (Parties in the end agreed upon a reduction of 8%), but that they can redistribute the burden of emissions reductions among themselves by

---

[263] *See* Report of COP-1, Decision 1/CP.1, *supra* note 23.

[264] *See* U.N. Doc. FCCC/AGBM/1996/MISC.2, at 18-25.

[265] *See* OBERTHÜR & OTT, *supra* note 3, at 51.

[266] The timetables in this proposal had been previously agreed with the EU. *Id.* at 116. *See also* U.N. Doc. FCCC/AGBM/1996/MISC.2, at 13-18.

[267] At COP-2 the U.S. conceded on taking "binding" targets. *See* Speech by Timothy Wirth, Under Secretary of Global Affairs, as quoted by OBERTHÜR & OTT, *supra* note 3, at 52

[268] Whereas other Parties like the U.S. were pushing for comprehensive coverage i.e. one that included six rather than three GHGs, the EU was patently divided on this issue. Countries like Germany, France and Austria had favored a partial basket of gases. The UK and the Netherlands, on the other hand, were in favor of a comprehensive approach. *See* OBERTHÜR & OTT, *supra* note 3, at 120-126.

[269] *See* 1990th European Council of Environmental Ministers, Brussels, Mar. 3, 1997 [hereinafter March 1997 Council]. The June 1997 Council further proposed a 7.5% reduction for 2005 for the same basket of gases. *See* 2017th European Council of Environmental Ministers Luxembourg, 19/20 June 1997. Both docs are also available at: www.environment.fgov.be/Root/tasks/atmosphere/klim/pub/eu/main_en.htm (visited Dec. 10, 2001).

means of an internal agreement (the "Burden Sharing Agreement;" see below).

Although developing countries supported the EU proposal on targets,[270] this approach drew considerable criticism from JUSSCANNZ Parties, in particular Japan and Australia, which considered it "unfair" because it was rooted on the possibility of internal differentiation (thus flexibility)[271] while at the same time calling for a single target at the international level.[272] Nonetheless, Farhana Yamin considers that, despite individual proposals from Member States, "it was the collective voice of the EU that forced [JUSSCANNZ] countries to take this target position seriously" and that it "represented the pinnacle of the EU leadership" in the Kyoto negotiations.[273]

Whereas the EU secured its main objectives of having binding targets for developed countries alongside with the possibility of it being able to combine its aggregate targets into a "bubble," on nearly every other issue regarding targets the EU's preferred proposal was effectively rejected. Except with regard to the fact that the targets were ultimately differentiated among developed countries[274] (an approach favored e.g. by Australia),[275] and that Parties chose 1990 as the year upon which reduction should be based[276] (a EU preference),[277] the

---

[270] OBERTHÜR & OTT, *supra* note 3, at 118.

[271] France for one favored differentiated targets due to its reliance on nuclear energy and, consequently, low per capita emissions. *See* U.N. Doc. FCCC/AGBM/1997/MISC.1, at 22.

[272] *See* Yamin, *supra* note 12, at 55; OBERTHÜR & OTT, *supra* note 3, at 116; and GRUBB ET AL, *supra* note_11, at 84-86.

[273] Yamin, *id*; and GRUBB ET AL, *id.* at 87.

[274] *See* Kyoto Protocol, *supra* note_6, Annex B.

[275] The EU spent most if its negotiating time either discussing among itself or talking to the U.S. and Japan. Consequently, it paid less attention to the concerns of countries with Economies in Transition (EITs), in particular those which were deemed to join the EU in the mid-term. According to OBERTHUR & OTT, *supra* note 3, at 129-130 "...there can be little doubt that the Polish and Hungarian commitments [-4%] would look different if the EU had been more proactive in its diplomatic efforts towards [those] countries...."

[276] Kyoto Protoccol, *supra* note_6, Article 3.1.

[277] The EU's insistence on 1990 as the base year (although somewhat against the stated opinion of France), constituted a strategic objective for the EU. A later base year would have put the EU in disadvantage by rewarding those countries that had not limited their emissions since the adoption of the UNFCCC in 1992. *See* GRUBB ET AL, *supra* note_11, at 72. However, not all gases covered by the Protocol are subject to the 1990 base year. In fact, Parties "may use" 1995 as the base year for the so-called "industrial gases" (hydrofluorocarbons, perfluorocarbons and sulphur haxafluoride). *See*

bulk of the target's design features were instead U.S. proposals—such as a comprehensive coverage of six gases rather than three.[278] In addition, there is no interim target for 2005.[279] Furthermore, rather than being based on a single year assessment, the targets are assessed on the basis of a five year[280] "budget" or "commitment" period commencing in 2008.[281]

1. The Burden Sharing Agreement and Article 4 of the Kyoto Protocol

The issue of "burden sharing" has been historically at the center of the EU position on climate change.[282] Already during the UNFCCC negotiations, the EU had announced it would implement its commitments jointly.[283] However, after the entry into force of the Convention and perhaps because of the non-binding nature of its stabilization goal, EU climate policy moved slowly. It was only in the run up to Kyoto, in March 1997, that the EU managed to come to an internal agreement on burden sharing.[284] Negotiated under the Dutch Presidency,[285] this internal agreement contrasted with the EU's own

---

Kyoto Protocol, *supra* note_6, Article 3.8. This was mainly to accommodate industrial bases' concerns in Europe and Japan. *See* GRUBB ET AL, *id.*, at 75-76.

[278] See Kyoto Protocol, supra note_6, Annex A. The wider the coverage of gases the greater the flexibility in reaching one's target. That is why the U.S. favored a six gas coverage rather than a 3 gas coverage. By COP-3 the U.S. had also decided to accept differentiated. *See* OBERTHÜR & OTT, *supra* note 3, at 119 and 128; and GRUBB ET AL, *id.* at 69, 72-76.

[279] *See* Kyoto Protocol, *supra* note 6, Article 3.2, which merely calls for each Party to have made by 2005 ". . .*demonstrable progress* in achieving its commitments under th[e] Protocol." (emphasis added.)

[280] The EU then tried to have it commence in 2003-2007 but it failed. *See* OBERTHÜR & OTT, *supra* note 3, at 126.

[281] Kyoto Protocol, *supra* note_6, Article 3.1.

[282] MANNERS, *supra* note 41.

[283] It had thus interpreted the language in article UNFCCC 4.2(b), *supra* note, 5, allowing Parties to meet their commitments "individually of jointly." *For an illustration of the EU position on joint fulfilment in the context of the UNFCCC negotiations, See* Daniel Bodansky, *The History of the Climate Change Regime*, *in* SPRINZ & LUTERBACHER, *supra* note 10, at 33.

[284] March 1997 Council, *supra* note 269.

[285] The Burden Sharing Agreement of 1997 was based on a proposal prepared by a team of researchers from Utrecht University in the Netherlands. *See* K. Blok, G.J.M. Phylipsen, and J.W. Bode, *The triptique approach: burden differentiation of CO2 emission reduction among European Union* Member States, Utrecht University, Utrecht, 1997. *For a detailed account of the burden sharing negotiations, see* Lasse Ringius, *Differentiation, leaders and fairness: negotiating climate commitments in the European Community*, 4 International Negotiation 133-166 (1999).

proposal of a 15% reduction described above. In fact, the 1997 Burden Sharing Agreement would only accomplish a 9% reduction, with Member States' limitations or reductions ranging from –25% to +40% (see table 3, below).

It hence came as no surprise that this agreement had to be renegotiated after the Protocol's adoption, which mandates an 8% reduction for the EC and the Member States. This time under a British Presidency in 1998, the EU renegotiated the Burden Sharing Agreement to meet the Kyoto targets, "but ultimately the decision was political."[286] With the prospect of locking in specific individual targets, the collective ambition at COP-3 (1997) gave way to the positions of the more conservative Member States. Indeed, as Oberthür and Ott summarize in a characteristic illustration of the relationship between the Member States in the climate arena:

> ...[A] number of governments used the new situation to achieve a general relaxation of their targets. Denmark and Germany demanded adjustments and the former "green" countries Austria and the Netherlands admitted that they would not be able to meet their ambitious targets of the first agreement. These announcements triggered distinctive resistance from Greece, Ireland, Portugal and Spain, who were now expected to limit their emission growth to a larger extent than formerly agreed. Of the main emitters of the [EU], only the UK declared that it would take a stronger commitment than before.[287]

Table 3: EU 1997 and 1998 Burden Sharing Agreements

Member State	1997[288]	1998[289]
Austria	-25%	-13%
Belgium	-10%	-7.5%
Denmark	-25%	- 21%
Finland	0%	0%

[286] *See* Dessai & Michaelowa, supra note 152.

[287] *See* OBERTHÜR & OTT, *supra* note 3, at 147.

[288] March 1997 Council, *supra* note 269.

[289] 2106th European Council of Environmental Ministers, Luxembourg, 16 June 1998. Available at: http://www.environment.fgov.be/Root/tasks/atmosphere/klim/pub/eu/main_ en.htm (visited October, 1, 2002).

Table 3 Continued: EU 1997 and 1998 Burden Sharing Agreements

Member State	1997	1998
France	0%	0%
Germany	-25%	-21%
Greece	+30%	+25%
Ireland	+15%	+13%
Italy	-7%	-6.5%
Luxembourg	-30%	-28%
Netherlands	-10%	-6.0%
Portugal	+40%	+27%
Spain	+17%	+15%
Sweden	+5%	+4.0%
United Kingdom	-10%	-12.5%
EU TOTAL	**-9.2%**	**-8%**

The 1998 burden sharing thus settled the scores after Kyoto and allowed the EC and the Member States to focus on the development of their own implementation plans, which have indeed been under way ever since.[290]

The issue of burden sharing is intrinsically linked with a key provision in the Protocol: Article 4, also known as the "joint fulfillment" provision. This article was established essentially to accommodate the possibility that the EU and its Member States would implement their targets jointly or as a "bubble" and, as said, constituted a cornerstone of the EU negotiating position. Some commentators have argued that the Article 4 negotiations undercut somewhat the EU's negotiating positions on other matters, where the EU had to give in so as to secure agreement on joint fulfillment.[291] Another price to pay

[290] At the date of this writing virtually every Member State had either adopted its climate plan, or had developed a first draft of such a plan. *See* Sebastian Oberthür & Dennis Tänzler, International Regimes as a Trigger of Policy Diffusion: The Development of Climate Policies in the European Union, Annex 1 (Feb. 2002) (manuscript on file with Authors). For analyses of several plans, *see* GUMMER & MORELAND; Broadbent; Dessai & Michaelowa; Eyre; Schleich et al, all *supra* note 152. *See also* links to Member States' climate web sites at: http://www.europa.eu.int/comm/enviroment/climat/links.htm (visited Dec. 10, 2002).

[291] *See* Yamin, supra note 12, at 56-57.

for this article was that it contains several features that were not EU proposals.[292] First, it allows for the possibility that Parties other than the EU (a so-called regional economic and integration organization-REIO, like the North American Free Trade Agreement[293]) may also enter into a bubble agreement.[294] Secondly, the bubble agreement must remain unchanged from the time of ratification of the Protocol until the end of the commitment period.[295] Thirdly, and most importantly, the bubble that will be applicable to the EU contains a provision on individual and joint responsibility between the REIO and its members. According to Article 4.6 of the Protocol, "in the event of failure to achieve the *total combined level* of emissions reductions,"[296] both each non-complying bubble member and the bubble itself are responsible for such "combined" target.

C. DEVELOPING COUNTRIES

Traditionally, the EU has taken a different approach to developing country participation in the climate regime, when compared to other OECD developed countries. Notably, the U.S. and Australia have argued that the larger developing countries should take on targets or limitations during the Kyoto Protocol's first commitment period. This was clearly expressed in the 1997 Byrd-Hagel Resolution by the U.S. Senate, which required that any agreement signed by the U.S. should have meaningful participation by key developing counties in

---

[292] *For an analysis of the Article 4 negotiations, see* Depledge, *supra* note 78, at 57-59.

[293] North American Free Trade Agreement Between the Government of the United States of America, the Government of Canada and the Government of the United Mexican States, Dec. 17, 1992, U.S.-Can-Mex., 32 I.L.M. 605 (1993).

[294] *See* Article 4.1, 2, 3 and 5 of the Kyoto Protocol, *supra* note 6. However, Parties new that the EU would be the only REIO using this article in the foreseeable future. In fact, the EU is the only REIO with at a developed enough stage of integration (far beyond "economic" in fact) to be able to effectively enforce—via e.g. the European Court of Justice—the joint responsibility obligation under Article 4 of the Kyoto Protocol.

[295] *Id.* Article 4.2 and 4.3. The EU had proposed that the Burden Sharing Agreement be changed up until "five years before the expiration of the [commitment] period." This would have allowed the EU to change the agreement right before the start of the first commitment period, in 2008, so as to take on board the expcted new Member States of Central and Eastern Europe. *See* OBERTHÜR & OTT, *supra* note 3, at 144. *See also* Depledge, *supra* note 78,at 57-59.

[296] Emphasis added.

the same commitment period, while not harming the U.S. economy.[297]

The EU, on the other hand, has taken a much more conciliatory position with respect to developing countries commitments. In the run-up to Kyoto, the EU supported the G-77/China's opposition to new commitments for developing countries, in line with the Berlin Mandate in fact.[298] Instead, the EU argued for a "graduation" – which would include in the countries taking on commitments those developing countries that had joined the OECD, like South Korea and Mexico – and "evolution" – because regulation of developing countries emissions in the long term is an environmental necessity.[299] According to Farhana Yamin, the EU was unable to explain their proposals (which were somewhere between the U.S. and its allies and the G77/China) to developing countries, who rejected them as soon as they heard mention of new commitments.[300] The EU proposal for developing countries is fairly consistent with its own "bubble" concept, where more capable states take on higher emissions cuts (e.g. Germany) while the less developed (e.g. Spain, Portugal, Greece, and Ireland) are allowed to increase their emissions. In their view, similar principles can be applied to the climate regime as a whole in the future. Indeed, the EU bubble will surely bring a good deal of insight into global burden sharing for future commitment periods.

After Kyoto, the EU's relationship with developing countries has been mixed. Sometimes it has supported Umbrella Group positions, other times G77/China positions, and probably most of the time somewhere in between. However, after the U.S. Bush administration rejected further negotiations over the Kyoto Protocol, the EU speedily arranged support from G77/China. The EU/G77 coalition was crucial for the success of

---

[297] *See* Byrd-Hagel Resolution, Expressing the sense of the Senate regarding the conditions for the United States becoming a signatory to any international agreement on greenhouse gas emissions under the United Nations Framework Convention on Climate Change, 105th Congress 1st Session S. RES. 98. (July 25, 1997), available at: http://www.nationalcenter.org/KyotoSenate.html (visited Dec.10, 2001).

[298] *See* Yamin, *supra* note 12, at 62-64; and Lacasta & Barata, *supra* note 11, at 124-125.

[299] *See* GRUBB ET AL, *supra* note 11, at 108-111.

[300] Yamin, *supra* note 12, at 124-125. Developing Countries fear that the developed countries might convert the climate change regime into a vehicle that will prevent them from growing economically.

the Bonn meeting in the summer of 2001 at COP-5.[301] According to some commentators, Europe has bred a polity that is far less dominated by the fossil-fuel cartel and far more open to the logic of a new North/South deal, when compared to the U.S. This was noticeably apparent when the EU and a few other developed nations pledged to contribute □450 million annually by 2005 (with this level to be reviewed in 2008) for developing countries climate change activities, while the U.S., Australia and Japan remained silent.[302]

It is important to consider whether this coalition will hold, strengthen or collapse altogether in the near future. The Marrakech conference already saw some weakening of the coalition, with the EU caving in to many Umbrella demands, much to the dislike of G77/China. However, with the discussion on second commitment period targets nearing, the EU will surely have to take a leadership and mediating role in order to "keep the family together." This will be one of the biggest challenges the EU faces in the years to come (see section VII, below).

VI. THE EU AS A LEADER ON CLIMATE CHANGE: ASPIRATION OR REALISM?

A. OVERVIEW OF EUROPEAN LEADERSHIP PROPOSALS

The sections above have given a mixed picture of the EU's ability to pursue a leadership role in climate change policy. In Sections II and III we saw that, despite favorable conditions in the EU in terms of public and business support, the EU institutional machinery in areas of shared or mixed competence has constrained the Union's ability to both implement meaningful domestic policies (section IV) and prepare and present an effective external negotiating position. In Section V we reviewed the EU's performance on selected issues of the international climate negotiations. Although by no means exhaustive, such

---

[301] *See* Tom Athanasiou and Paul Baer, *Bonn and Genoa: a tale of two cities and two movements*, Foreign Policy in Focus (Aug. 2001), available at: http://www.foreignpolicy-infocus.org/ (visited 17.11.01). The EU/G77 coalition was unable to break the Umbrella group though, even with a silent U.S.

[302] *See* Suraje Dessai and Nuno S. Lacasta, The Marrakech Accords: Saving or Sinking the Kyoto Protocol?, Euronatura Working paper 1/2002 (unpublished manuscript on file with authors)[hereinafter Dessai and Lacasta 2002].

exercises allowed us to realize that the EU can be a powerful force in the negotiations and that many key elements in the Kyoto Protocol were either EU proposals or, as a result of EU positions, were not considerably watered down by others. We also identified the existence of a paradox according to which the EU—and several of its Member States—consistently pushed for progressive elements in the agenda, whereas the U.S. drove the thinking on the specific elements of the negotiations. As a result, the key architectural elements in the Kyoto Protocol are all U.S. ideas. In this concluding section we will review key ways that Europe may continue leading on climate change, with a view to discerning from recent trends the way forward.

Among the climate policy literature, two proposals have emerged on the issue of European leadership. The first proposal was presented in 1999 by two German researchers, Sebastian Oberthür and Herman Ott.[303] The second proposal was headed by Joyeeta Gupta and Michael Grubb in 2000, and was part of a comprehensive research project on this very subject.[304] Both proposals are complementary and we shall therefore focus on their common elements and apply them to the practice of the EU for the past year.

These proposals call for a decisive stance from Europe, in particular but not exclusively the EU,[305] on climate change. They are predicated on the central notion that the U.S. (or others like Japan or the G77) will not exercise leadership, and that the EU is the only major player with both the will and the capacity to muster the resources to move the process forward. The key common elements of these proposals are thus:

- Ensuring ratification and entry into force of the Kyoto Protocol, even without the U.S. initially. The core elements of this strategy include forging a common understanding with Japan and Russia in particular, but also with other Parties, so as to ensure the majority needed for the entry into force of the Protocol without the U.S.;[306]

---

[303] For a review of this proposal, *see* OBERTHÜR & OTT, *supra* note 3.

[304] *See* GUPTA & GRUBB, *supra* note 4.

[305] OBERTHÜR & OTT, *supra* note 3, at 301, termed it a "leadership initiative."

[306] GUPTA & GRUBB, *supra* note 4, at 309; and OBERTHÜR & OTT, *supra* note 3, at 303-305.

- Implementing domestic policies and measures (at EU and Member States' levels), so as to lead "by example." In addition to demonstrating that the EU was "putting its money where its mouth was," this element would arguably pave the way to international coordination of policies and measures, but this time from a bottom-up process;[307] and

- Strengthen relations and common strategies with developing countries. This approach would rely on increased capacity building support, as well as on ways to "bridge the gap between [the developing countries] and the U.S."[308]

Gupta and Grubb further add the following elements:

- First, the EU needs to develop a "better diplomatic *modus operandi* to ensure that its total influence is united, flexible, effective and wide in its outreach."[309] To that end, the authors argue, the EU should focus its energies on devising common implementation and negotiating strategies, whereas their implementation should be left primarily to the Member States. With regard to international negotiations in particular, the authors recommend that the EU and the Member States effectively use their impressive combined diplomatic resources. In particular, Member States should have clearly stated roles, including greater authority to speak. This fact alone would enhance the projection of the EU's arguments.

- Second, the EU and the Member States need to deploy comprehensive public education and outreach campaigns. This is especially relevant in the context of the specific

---

[307] OBERTHÜR & OTT, *id.* at 305-308; and GUPTA & GRUBB, *id.* Oberthur and Ott suggest that in the process of building a coalition for entry into force with like-minded countries, the EU should also coordinate a "limited set of [policies and] measures," such as in the fields of fiscal policy; research and development on renewables and energy efficiency; dismantling of perverse subsidies; energy efficiency standards; and public procurement. *Id.*

[308] GUPTA & GRUBB, *id.* at 310; and OBERTHÜR & OTT, *id.*, at 309-31. *See also* the discussion in section V *supra* on developing countries.

[309] GUPTA & GRUBB, *id.*

> "sacrifices" that will be required in order to implement domestic policies and measures.[310]

Are these proposals, both dating back two or three years, already outdated by the pace of events? Quite the contrary. The U.S. pull out of Kyoto only reinforced all the elements in the leadership proposals reviewed, and during the last year several—although by no means all—elements of those strategies were clearly visible on the part of the European Union. The next section presents some examples.

B. RECENT DEVELOPMENTS IN LIGHT OF THE LEADERSHIP ELEMENTS: FROM THE HAGUE TO MARRAKECH

Shortly after the U.S. withdrawal from the Protocol, the EU sent a letter to the White House emphasizing that a global strategy to tackle climate change is an integral part of its relations with the United States. European Commission President Romano Prodi and Swedish Prime Minister Goran Persson, whose country held the EU presidency at the time, signed the joint letter that challenged the United States to find the "political courage" to come to an agreement on the Protocol's operational rules, at talks due to take place in Bonn in July 2001.[311] A series of transatlantic letters and diplomatic endeavors followed to try to keep the U.S. engaged.[312] This shuttling of officials confirmed the rise of climate change as yet another controversial area of transatlantic foreign policy.

As European leaders realized that the U.S. had decisively disengaged from the international climate talks, EU environment ministers pledged to pursue ratification of the Protocol with or without the U.S.[313] In addition, demonstrating flexibility it had lacked at COP-6,[314] the EU signaled its willingness to renegotiate parts of the Protocol in order to accommodate U.S.

---

[310] *Id.* at 310.

[311] "EU Tells Bush Climate Is Key to Europe/U.S. Ties," Reuters (Mar. 23, 2001).

[312] "Bush Urges U.S. Partnership with EU in Fighting Problem of Global Warming," BNA-Intl. Env. Reporter, vol. 24, No.13, at 500 (June 20, 2001).

[313] "Kyoto accord may be ratified without U.S. – Germany," Reuters News Service (Mar. 15, 2001). "'Maybe it will be necessary to ratify the Protocol without the U.S. and to instead pave the way for them to join later,' Rainer Hinrichs-Rahlwes, director general at the environment ministry told Reuters at a conference in Leipzig."

[314] *See* Grubb & Yamin, *supra* note 81; and Ott, *supra* note 54, at 283-84.

concerns,[315] but the administration had simply dug itself too deeply to contemplate any adjustment to its withdrawal. The EU hence started gathering support for the Kyoto Protocol around the world. A European delegation visited Moscow, Tehran (Iran led the G77 at the time), Beijing and Tokyo.[316]

At COP-6.5, in Bonn, the EU showed extensive negotiating flexibility. As a result, a political agreement (the Bonn Agreement) was brokered among the Parties.[317] According to the EU the Kyoto Protocol was saved. A bitter sweet feeling was nonetheless evident in some EU quarters as they were reminded that the terms of the Bonn Agreement are really not so much different—perhaps even less stringent in some areas—than the agreement almost reached at COP-6, at the end of 2000.[318] However, the stakes in 2001 were considerably different than those of 2000, in that now it was the Protocol's own survival that was at issue due to the U.S. withdrawal. In that respect, the EU managed to pull together a coalition of like-minded countries to secure agreement conducive to the Protocol's entry into force. That coalition—although at times bitter—persisted at COP-7, in November 2001. At COP-6.5 and COP-7 the EU appeared somewhat less under a reclusion mode, having engaged in multiple discussions with third Parties. This may have resulted in part from the fact that by COP-6.5 and 7 the EU had well established negotiation positions, or at least the key principles underlying such positions, therefore allowing it to reach out to other Parties. It remains to be seen whether that was more the result of a particular Presidency (Belgium at the time) or the beginning of a change of practice.

VII. CONCLUSION AND OUTLOOK: CAN THE EU LEAD THE WAY BEYOND THE KYOTO PROTOCOL?

Legge and Egenhofer have labeled this next phase as "the regionalization of the Kyoto Protocol."[319] Just before COP-7,

---

[315] "EU ready to renegotiate Kyoto," BBC News (Apr. 7, 2001).

[316] "EU to send Delegations to Pacific, Canada on Climate Change; Japan Plans similar Trip," BNA-Intl. Env. Reporter, *supra* note 313, at 499.

[317] See Decision 5/CP.6, *in* U.N. Doc. FCCC/CP/2001/L.7.

[318] Concluding in a similar vein, Ott, *supra* note 54.

[319] T. Legge and C. Egenhofer, After Marrakech: the regionalisation of the Kyoto Protocol. CEPS Commentary (2001). Available at: http://www.ceps.be (visited Dec.12,

the European Commission adopted a major package of decisions on the ratification of the Kyoto Protocol, the implementation of the European Climate Change Program, and a framework Directive for greenhouse gas emissions trading within the European Community (see section IV, above). Although this effort represents considerable progress towards ratification and implementation, coupled with Member States' own implementation plans, the EU should not be complacent and should learn from past lessons on domestic policies and measures. The ratification and implementation processes need to be understood as on-going tasks. With regard to the former, the EU and its Member States are demonstrating leadership by having ratified Protocol on time for its entry into force the World Summit on Sustainable Development in the latter half of 2002.[320] EU ratification alone, however, will not ensure that the Protocol enters into force. As a result, the EU needs to continue pressuring other key Parties to ratify.[321]

Furthermore, it is essential to bring the U.S. back into the Kyoto game and the EU must play a key role here. U.S. "free-riding" on climate change raises deeper issues of equity for the international community as a whole,[322] and may increase the reluctance of developing countries to take mitigation commitments of their own. Climate change is a challenge that is here to stay—it is a century-scale global commons problem. Having the world's largest emitter of greenhouse gases outside a global climate change regime cannot be sustained for a long period of time. It is therefore essential to re-engage the U.S. on serious climate talks, using if necessary avenues other than the UNFCCC. The establishment of a high-level working group at the EU-U.S. summit in Gothenburg in 2001 may constitute an initial basis for continued contacts between the two blocs.[323]

2001).

[320] *See* March 2002 Environment Council, *supra* note 72. *See also* "EU Ministers Agree to Kyoto Ratification: Some Nations Differ over Emissions Targets," BNA-Intl. Env. Reporter, vol. 25, No.6, at 257 (Mar. 13, 2002). *See also* on the EU having ratified the Kyoto Protocol, EU ratification, *supra* note 9.

[321] A good example came from John Prescott, who urged the world's biggest per capita emitter, Australia, not to hide behind the U.S. and use this as an excuse not to do anything. "Australia warned on Kyoto" AAP (Dec. 2001).

[322] M.S. Soroos, Global climate change and the futility of the Kyoto process, 1(2) Global Environmental Politics, 1-9.

[323] On Mar. 4 2002, the Environment Council ". . .confirmed its willingness to pursue a dialogue with the United States in the framework of the EU/United States High

However, the recent U.S. administration proposal on climate change represents a set back in terms of its international engagement, as under that plan U.S. emissions are estimated to grow at business-as-usual levels.[324] Initial European reactions indicate clear skepticism from their part.[325]

The EU seems to be the only Party willing and capable to bridge the divide between the Umbrella Group and the developing countries. Assuming the Protocol enters into force, as Parties prepare for the negotiations of second commitment period targets, the strategy of bringing the U.S. on board must be played in tandem with the negotiation of developing countries' targets. Some developing countries may be more willing than others to take on commitments.

Rather ironically, the U.S. withdrawal form the Kyoto Protocol might have contributed significantly to Europe taking the role of leading the climate change regime into full being. As the EU continues to assert itself internationally, its responsibility increases accordingly. To seize this opportunity of lead-

---

Level Group . . ." *See* March 2002 Council (Authors' translation from the original French version), *supra* note 72.

[324] *See e.g.* "Blowing smoke", *The Economist* (Feb. 16, 2001), at 27-28; and Special Report: Climate Change," BNA-Intl. Env. Reporter, vol. 25, No.5, at 244-250 (Feb. 27, 2002).

[325] Jaume MATAS, Minister for Environment, Spanish Presidency of the EU and Margot WALLSTRÖM, Commissioner for Environment, European Commission, Reaction by the European Union to the Speech by President Bush on Climate Change of Feb. 14, 2002, *available at* <http://www.europa.eu.int/rapid/start/cgi/guesten.ksh?p_action.gettxt=gt&doc=MEMO/02/33|0|RAPID&lg=EN&display=.> (visited Feb. 22, 2001).

It is clear that the proposals for U.S. action on climate change are purely domestic. But the EU is concerned that they will not even be sufficient to reduce U.S. emissions. The "intensity target" proposed allows for further increases in absolute emissions and is not sufficient to fight climate change effectively. In contrast, the Kyoto Protocol requires most industrialised countries to achieve absolute emission reductions, while they still expect economic growth.

The March 2002 Council, *supra* note 72, after approving the ratification of the Kyoto Protocol by the EC, commented on President Bush's plan as follows (Authors' translation from the original French version)

... The Council...

- is concerned that the [U.S. President's] proposed measures, which allow for an increase in greenhouse gases at a rate close to the present rate, are insufficient to effectively combat climate change;

- expects all parties to the UNFCCC, including the USA, the leading emitter of greenhouse gases, to assume their responsibilities under the convention, which demands industrialised countries to reduce their greenhouse gas emissions to 1990 levels....

ership, the EU needs to change internal procedures and practices, and engage more widely with third Parties.

It has already been pointed out that the EU needs to lay more emphasis on timely coalition building, especially with the group of developing countries. In addition, in order to fulfill the important leadership functions the EU is called to perform in the years to come, it will have to improve the internal decision-making process, which has proven inefficient and too cumbersome for the needs of climate negotiating sessions (see Sections II, III). Some of the internal issues addressed throughout this paper include:

- The EU cannot afford paralyzing itself by regular haggling over competences. The EU needs to at least agree on a common mid and long-term strategy on climate change, and on a *modus operandi* for international negotiations, which assigns clear negotiating and decision-making powers to the Commission and/or to the Member States according to their perceived "comparative advantage." These negotiators need to be authorized to act with flexibility, i.e. to enter into bargaining with third Parties without being forced to assure consensus among all EU Member States in the case of each modification to original agreed EU negotiating positions. Member States must hence give up some (paralyzing) control in order to ensure higher overall effectiveness of the EU negotiating practice, which in turn would improve its relationship to negotiating partners.

- Like in other environmental regimes, the Commission rather than the Presidency should take the lead on climate negotiations. This would not be incompatible with a clearer division of labor among the Commission and the Member States described in the preceding bullet, in that the Commission would work closely with the Member States in both preparing and negotiating a common position. In fact, such a division of labor would require that someone ensure the medium and long-term continuity, stability and consistency of EU negotiating positions. The Commission seems to be better equipped for that task in that it is by definition and practice the "guardian of the Treaties" i.e. of EU policies and regulations.

- In addition, the EU needs to enter into negotiating sessions with more elaborate positions in order to ensure a greater impact on the overall design of the regime. It also and very importantly needs to develop potential fall-back positions ahead of time to allow for more flexibility and quick moves in the decisive phases of international bargaining process. As a result, the internal process for reaching a common position needs to be streamlined by, for instance, having a system of "lead countries" to prepare, in close coordination with the Commission, draft common negotiating positions to be decided by Council. In fact, some Member States have historically provided most of the intellectual capital to selected issues, and at times such a system of lead countries has been adopted during negotiating sessions. The EU would nonetheless benefit from having such a practice made more permanent and effective between negotiating sessions.

- Finally, in terms of the specific institutional arrangements within the EU to further this leadership strategy, the Gupta and Grubb suggestion that climate change should become part of the EU's Common Foreign and Security Policy, thereby greatly enhancing its profile.[326]

In conclusion, the EU's main priorities in the mid-long-term relate to its ability to (a) implement effective domestic climate policies—leading by example; (b) reform internal processes so as to ensure it is more capable to lead the international negotiations (e.g. the role of the Commission); and (c) prepare itself adequately for the second commitment period negotiations under the Kyoto Protocol (by in particular "bridging the gap" between the U.S. and the developing countries). If the EU manages to develop more efficient ways to coordinate its many voices—maybe sometimes even without reaching consensus–, it will be better able to lead the international climate change process. The analysis of the history of EU climate change policy, now ten years old, has revealed a mixed record that, in spite of all its shortcomings, gives rise to guarded optimism for continued international coordination and cooperation on the management of the global commons.

---

[326] GUPTA & GRUBB, *supra* note 4, at 305.

ARTICLE

U.S. CLIMATE CHANGE POLICY UNDER PRESIDENT CLINTON: A LOOK BACK

AMY ROYDEN*

I. INTRODUCTION

On October 22, 1997, President Clinton gave an eagerly anticipated speech at the National Geographic Society outlining the Administration's policy on climate change prior to the Kyoto negotiations on the U.N. Framework Convention on Climate Change (UNFCCC). He said

> Today we have a clear responsibility and a golden opportunity to conquer one of the most important challenges of the 21st century -- the challenge of climate change -- with an environmentally sound and economically strong strategy, to achieve meaningful reductions in greenhouse gases in the United States and throughout the industrialized and the developing

* *Amy Royden* is a Senior Staff Associate for the State and Territorial Air Pollution Program Administrators (STAPPA) and Association of Local Air Pollution Control Officials (ALAPCO). She is the lead staff person for issues related to stratospheric ozone and global climate change, criteria pollutants, agriculture and training. Prior to joining STAPPA and ALAPCO in 2001, she worked as consultant, authoring two articles on climate change and advising a major company on interested in expanding its sustainable development business. She was a special assistant to the Assistant Secretary of State for Oceans, Environment and Science from 2000-2001, where she focused on climate change issues. From 1994-2000, she worked as an attorney-adviser for the Department of Energy, serving as special assistant to the General Counsel from 1998-2000. Amy holds a Bachelor of Arts degree from the University of Virginia in Economics and Spanish and a law degree from Harvard Law School. She would like to thank Evan Bloom, David Gardiner, Melinda Kimble, Rafe Pomerance, and David Sandalow for their assistance with this article.

> world. It is a strategy that, if properly implemented, will create a wealth of new opportunities for entrepreneurs at home, uphold our leadership abroad, and harness the power of free markets to free our planet from an unacceptable risk; a strategy consistent with our commitment to reject false choices.
>
> Scientists don't yet know what the precise consequences [of increased greenhouse gas concentrations] will be. But we do know enough now to know that the Industrial Age has dramatically increased greenhouse gases in the atmosphere, where they take a century or more to dissipate; and that the process must be slowed, then stopped, then reduced if we want to continue our economic progress and preserve the quality of life in the United States and throughout our planet. We know what we have to do.[1]

It was an ambitious statement, calling for the United States to take on a serious environmental challenge -climate change- and to use its ingenuity and the tools of the market in this effort. It also summarizes the approach the Clinton administration wanted to take on climate change: listen to the scientists, and take action in a way that makes sound economic and environmental sense.

What was the result of this approach? The Clinton administration created numerous programs designed to reduce greenhouse gas emissions. It embarked upon innovative voluntary programs with industry, including electric utilities and the transportation and buildings sectors, and established the Climate Change Technology Initiative (CCTI), a $6.3 billion, five-year package of spending and tax incentives designed to stimulate the use of energy efficient technologies in building, industrial processes, vehicles, and power generation. It helped write the Kyoto Protocol, an agreement with binding emissions limitations for developed countries that included flexibility mechanisms to promote cost-effective action.

However, the United States ended the decade failing to meet its voluntary commitment under the UNFCCC to reduce emissions by 2000 to 1990 levels. And, on the international front, despite the herculean efforts of U.S. negotiators, parties

---

[1] President Clinton, Address at National Geographic Society, paragraphs 9 and 13 (Oct. 22, 1997), *available at* http://clinton6.nara.gov/1997/10/1997-10-22-remarks-on-global-climate-change.html [hereinafter Clinton's National Geographic Speech].

were unable to reach an agreement in 2000 that would establish the rules and procedures for the Kyoto Protocol and thus set the stage for its ratification.[2]

This mixed record underscores the difficulty of addressing climate change. It is not just an environmental issue, but an economic and social one. What will our economy in the future run on - natural gas, sun, hydrogen, nuclear or coal? How fast can we afford to change our infrastructure? What obligations do we have to the developing world, which will feels the most impact from climate change but is least equipped to deal with it? How do we get countries like India and China to grow in a manner that minimizes their growth in greenhouse gas emissions? In addition, the issue of climate change was (and still is) perceived differently domestically than internationally, which left the Administration fighting a battle on the home front as well as abroad.

This article describes the evolution of the Clinton Administration's policy on climate change and point to factors that influenced its deliberations. It focuses on the U.S. positions in international negotiations, international reaction to these positions, and domestic policies and politics that influenced these positions. More detailed analyses of certain issues – such as full descriptions of all the climate change-related activities undertaken by the federal government, both abroad[3] and at home[4] -- are beyond the scope of this article.

---

[2] This was accomplished in 2001 at COP-7 without U.S. participation. *See* http://www.unfccc.de/cop7/documents/accords_draft.pdf.

[3] Between 1993 and 2000, the U.S. Agency for International Development (USAID) invested over $1.4 billion for climate change-related mitigation activities abroad. ROGER S. BALLENTINE ET AL., MEETING THE CHALLENGE OF CLIMATE CHANGE: THE ACCOMPLISHMENTS OF THE CLINTON-GORE ADMINISTRATION (Jan. 2001) (on file with the author) [hereinafter ACCOMPLISHMENTS OF CLINTON ADMINISTRATION ON CLIMATE CHANGE]. These activities include activities that support the development and transfer of environmentally sound technologies and efforts to improve the ability of people to understand their vulnerability to climate change and increase people's ability to adapt to it. *Id.* In addition, descriptions of many bilateral and multilateral discussions related to climate change are not included.

[4] These include the U.S. Global Change Research Program, which looks at the science of climate change, including adaptation and vulnerability assessments; numerous Executive Orders (several executive orders to improve the energy efficiency and environmental performance of the federal government), *see, e.g.* Exec. Order No. 12902 (Mar. 8, 1994); Exec. Order No. 13123 (June. 3, 1999); Exec. Order No. 13149 (Apr. 22, 2000); an executive order to promote bio-energy, Exec. Order No. 13134 (1999); and rules and regulations promoting energy efficiency or other measures that would reduce greenhouse gas emissions, such as the Landfill Rule, *available at*

II. EVOLUTION OF CLINTON ADMINISTRATION POLICY

A. 1993: BTU TAX AND THE CLIMATE CHANGE ACTION PLAN

When William Jefferson Clinton entered office in January 1993, he was the first Democratic president since Jimmy Carter; it had been 12 years since the Democrats had been in power at the White House. Thus, constituencies that traditionally support the Democratic party – unions, pro-choice groups, gun control advocates, and environmentalists – hoped for action on their pet causes.[5] But the moderates within the party were more concerned about the economy, thus setting the stage for intraparty tensions.[6] The Democrats also controlled the House and Senate,[7] which meant (or so was thought) a favorable reception on the Hill for Administration legislative proposals.

Environmental groups were especially optimistic.[8] The tenures of Presidents Reagan and Bush had been marked by fierce battles with environmental groups, over issues ranging from acid rain to the weakening of the Environmental Protection Agency (hereinafter "EPA"). Vice President Albert Gore, Jr., on the other hand, had championed environmental causes throughout his tenure as a Senator and was a strong advocate of taking action on climate change.[9] Clearly, a new administra-

---

http://www.epa.gov/ttn/atw/landfill/landflpg.html (requiring large landfills to capture and combust their landfill gas emissions) and appliance standards for furnaces, water heaters, air conditioners, and refrigerators.

[5] William Claiborne, *Hopeful Interest Groups Ready Agendas for Clinton*, WASH. POST, Nov. 10, 1992, at A12.

[6] Thomas B. Edsall, *Taking Credit, Placing Blame; Clinton's Task: Contain Intraparty Tensions*, WASH. POST, Nov. 5, 1992, at A30.

[7] Ruth Marcus, *Clinton Hosts Meeting with Top Hill Democrats*, WASH. POST, Nov. 16, 1992 (Clinton has his first post-election meeting with "Democratic congressional leadership . . . to 'talk about our obligations' now that Democrats will control both branches of government for the first time in 12 years").

[8] *See, e.g.*, Colman McCarthy, *Gore's Politics Are Ever Green*, WASH. POST, Aug. 4, 1992, at D20 (the League of Conservation Voters calls Al Gore "an environmental Paul Revere" because he sees and acts on environmental problems early on).

[9] *See generally* AL GORE, EARTH IN THE BALANCE (1992). *See also* McCarthy, *supra* note 8 (noting that the League of Conservation Voters marked Gore as voting pro-environment 73 percent of the time in 1991, 95 percent in 1989-90, and 50 percent in 1987-88); Edward Walsh, *Clinton Picks Gore to Form A 'New Generation' Ticket; Tennessean Called Environmentalist and Family Man*, WASH. POST, July 10, 1992, at A1 (noting that "Gore is considered one of Washington's leading environmental advocates").

tion more friendly to environmental causes was now in town.[10] Industry groups, on the other hand, feared the advent of new environmental regulations.[11]

The administration started with two bold moves on the environmental front. On February 17, 1993, President Clinton announced his administration's plan, which included a British Thermal Unit (BTU) tax – a tax based on the heat content of energy.[12] Such a tax would have the effect of reducing emissions in addition to raising revenue for the government to help eliminate the deficit. Secondly, on April 21, 1993, (Earth Day), Clinton announced that he would adopt a program to reduce greenhouse gas emissions by 2000 to 1990 levels, in accordance with the UNFCCC.[13] He called on his administration to "produce a cost-effective plan . . . that can continue the trend of reduced emissions."

The administration soon discovered that Congress had little appetite for an energy tax, even one that would help reduce

---

[10] *See, e.g., Tom Kenworth, Activist Ex-Aide to Gore Tapped to Direct EPA,* WASH. POST, Dec. 12, 1992, at A10 (describing EPA nominee Carol Browner as an environmentalist and activist). While George Bush had signed the United Nations Framework Convention on Climate Change (UNFCCC) and 1992 amendments strengthening the Clean Air Act, he was convinced to do after tremendous lobbying from environmental groups. In addition, his administration's delegates pushed for voluntary rather than binding commitments in the UNFCCC. *See* J.W. Anderson, *A History of Climate Change as a Political Issue*, Resources for the Future policy paper, 11th paragraph, *available at* http://www.weathervane.rff.org/features/feature005.html. "The American position prevailed over the Europeans', and the final Framework Convention committed the parties to little more than to make an effort, voluntary and unenforceable, to hold down emissions". *Id.*

[11] *See, e.g.,* Tom Kenworth, *Ranchers and Loggers are Fearful Landlord Clinton Will Raise the Rent; Pressure Building to Overhaul 1872 Mining Law*, WASH. POST, Nov. 29, 1992, at A4; Daniel Southerland, *Clinton Hasn't Convinced Some Captains of Industry; Executives See Democratic Candidates as Centrists but Worry About Gore, Advisers, Congress*, WASH. POST, Oct. 28, 1992, at G1 (reporting on meeting of National Associations of Manufacturers where participants expressed concern that Clinton as president would interfere with the economy); Tom Kenworthy, *Confirmation Hearing Goes Well for Browner; EPA Designee Tries to Ease Business Concerns*, WASH. POST, Jan. 12, 1993, at A11 (Browner tries to allay industry concerns, saying that she hopes her tenure will mark a "new era in communication between the EPA and America's business community").

[12] President Clinton, Address to the Joint Sessions of Congress (Feb. 17, 1993), *available at* http://clinton6.nara.gov/1993/02/1993-02-17-address-by-the-president-to-the-joint-session-of-congress.html. Environmental groups helped the administration draft the proposal. *See* Thomas W. Lippman, *Energy Tax Proposal Has 'Green' Tint; Environmentalists Back Plan They Helped Draft*, WASH. POST, Mar. 2, 1993, at D1.

[13] White House Office of the Press Secretary, Remarks by the President in Earth Day Speech (Apr. 21, 1993), *available at* http://clinton6.nara.gov/1993/04/1993-04-21-presidents-remarks-in-earth-day-speech.html.

the deficit and promote environmentally responsible behavior. In the battle over Clinton's proposed budget,[14] the proposal to enact a BTU tax failed to gain enough support and was replaced with a raise in the gasoline tax by 4.3 cents per gallon.[15] Lesson learned: a broad-based carbon or energy tax was politically unacceptable in the United States, even with a Democratic Congress.[16] The administration would need to come up with other tools to address climate change.

In October 1993, President Clinton announced his Climate Change Action Plan (CCAP),[17] which consisted of over 50 new or expanded initiatives that the administration estimated would bring U.S. emissions back to 1990 levels by 2000. It included energy efficiency standards, cooperative programs with industry, and a pilot program for joint implementation (U.S. investment in emissions reductions overseas).[18] CCAP also

---

[14] *See, e.g.*, Eric Pianin, *Hill Democrats Press for Entitlement Caps; White House Opposes Setting Limits on Mandatory Spending Programs*, WASH. POST, May 18, 1993, at A1 (Clinton administration's tax and deficit reduction bill held up by demands from conservative and moderate Democrats); Eric Pianin and David Hilzenrath, *Clinton Visits Congress to Press Economic Goals; Budget Negotiators Given 'Macro' Advice*, WASH. POST, July 16, 1993, at A4 (Clinton goes to Hill to give broad advice as negotiations begin on budget package; Clinton tells members they are on their own to work out specific differences, including on energy tax).

[15] David S. Hilzenrath, *Politics Overtakes Policy in Energy Tax Debate*, WASH. POST, July 20, 1993, at C1 (describing how proposal for broad-based energy tax was whittled down in the Senate to a 4.3 cents gasoline tax; the House had actually passed a BTU tax).

[16] Whether that was a correct lesson is another matter. An environmental group member who is familiar with the BTU tax campaign remarked that the administration tried to sell the tax as a deficit reduction measure, not as an environmental measure, so it is not clear that the American public wouldn't support a tax with environmental benefits. The administration also could have directed some of the revenue stream from a tax to powerful constituencies who might have lobbied Congress in support of the measure (for example, some of the revenue could have gone to Medicare or Social Security). Interview with Alden Meyer, UCS.

[17] President William J. Clinton and Vice President Albert Gore, Jr., The Climate Change Action Plan (Oct. 1993), *available at* http://www.gcrio.org/USCCAP/toc.html [hereinafter Climate Change Action Plan].

[18] For example, as part of its strategy of industry cooperation, the plan directed the Department of Energy to enter into voluntary agreements with electric utilities to reduce their emissions by 2000 to 1990 levels or limit emissions under strict performance standards (the program was called "Climate Challenge"). *Id.* at 22. Utilities were given great flexibility in their agreements to implement a portfolio of emissions reductions projects. *Id.* Other partnerships included the Partnership for a New Generation of Vehicles (PNGV), the goal of which was to "develop a revolutionary new class of clean, efficient passenger vehicles;" Climate Wise (technical assistance to manufacturing industries to reduce greenhouse gas emissions); Industries of the Future (develop technologies to increase energy and resource efficiency in the most energy-intensive industries); and Energy Star®, a program for labeling energy efficient products.

committed the Administration to seeking $1.9 billion in new and redirected funding between 1994 and 2000 to implement the Plan.[19] The administration also projected that investments by firms and individuals in energy saving equipment and technologies would yield significant cost savings over the long term.[20]

The plan was denounced by many environmental advocacy organizations as inadequate since it did not propose any mandatory emissions reductions.[21] However, given that Congress would not accept a BTU tax, the administration likely assumed that Congress would not pass any proposal for mandatory emissions reductions, and thus decided to pursue voluntary programs.[22]

Though Clinton's plan was designed in a way to minimize the need for legislative or regulatory action,[23] the administration would still need Congressional approval for its funding commitments. This would become extremely difficult in 1995 when the Republicans took control of the House of Representatives and Senate.

The change in the U.S. administration was reflected in the position the U.S. took in the international negotiations on the UNFCCC.[24] The U.S. agreed that "science clearly suggests the

---

ACCOMPLISHMENTS OF CLINTON ADMINISTRATION ON CLIMATE CHANGE, *supra* note 3. These programs lasted throughout the administration.

[19] *Id.* at ii.

[20] *Id.* at 7. Administration officials would often point to these cost savings as independent reasons for implementing these measures. *See, e.g.*, White House Office of the Press Secretary, Press Briefing by Gene Sperling, Assistant to the President for Economic Policy, Jim Steinberg, Deputy Assistant to the President for National Security Affairs, and Leon Fuerth, National Security Advisor for the Vice President, (Dec. 11, 1997), *available at* http://clinton6.nara.gov/1997/12/1997-12-11-press-briefing-on-kyoto.html [hereinafter White House Kyoto Press Conference]. ("[Greenhouse gas reduction measures] are measures to improve the efficiency of our economy. They are measures that we would want to take whether or not there is a global regime"). This became especially important following the Knollenberg Amendment, prohibiting officials from "pre-implementation" of Kyoto.

[21] *See* Gary Lee, *Clinton Offers Package to 'Halt Global Warming'*, WASH. POST, Oct. 20, 1993, at A4 (citing criticisms by Greenpeace and Sierra Club of the voluntary nature of the program).

[22] *See* The Editorial Board, *Cooling the Climate*, WASH. POST, Oct. 21, 1993, at A30 (when Congress killed the BTU tax, it left the President few options other than voluntary cooperation).

[23] Climate Change Action Plan, *supra* note 17, at 7.

[24] The U.S., along with 155 other nations, had signed the UNFCCC at the Earth Summit in 1992; it ratified the treaty in October 15, 1992. *See also* the UNFCCC Secretariat's ratification list, *available at* http://www.unfccc.de /resource/conv /ratlist.

need for precautionary action to limit the growth of emissions and concentrations of greenhouse gases"[25] and thus "the first step is to discuss the adequacy of commitments with delegates here."[26] Its objectives at the Intergovernmental Negotiating Committee (INC) meetings[27] were to "keep the momentum on all [the] issues" going.[28]

B. 1994: GRIDLOCK AFTER MIDTERM CONGRESSIONAL ELECTIONS

After raising expectations at INC-9 with its statement that current commitments under the UNFCCC are inadequate, the U.S. disappointed environmentalists by its "failure to make specific proposals at INC-10 [held in August 1994] on just how the treaty should be strengthened."[29] The U.S. called for a new post-2000 aim without specifying what it should be, focused on joint implementation,[30] and promoted new efforts by the more "advanced" developing countries to limit their greenhouse gas emissions.[31] The U.S. was criticized by the Climate Action Network (CAN) – a coalition of environmental groups that follow and influence the negotiations – especially for its position on developing countries, since, as CAN noted, the U.S. had not made any new commitment to limit its own emissions.[32] (Both environmental groups and industry groups, most notably the Global Climate Coalition,[33] follow the climate negotiations closely.)

---

pdf. The treaty entered into force on March 21, 1994. *See also* UNFCCC Secretariat Web site, *at* http://www.unfccc.de/resource/convkp.html.

[25] Climate Action Network, *Changing Horses: Rafe Pomerance Interviewed*, ECO (No.10), Aug. 10, 1993, *available at* http://www.climatenetwork.org /eco/Eco10_0893.html.

[26] *Id.*

[27] The International Negotiation Committee comprised the parties to the UNFCCC meeting prior to the entry into force of the UNFCCC. *Id.*

[28] *Id.*

[29] Climate Action Network, *First Review of (In)adequacy of US Efforts at INC 10*, ECO No. 5, Aug. 31, 1994, *available at* http://www.climatenetwork.org /eco/E5US_Stance.html.

[30] *See* discussion of joint implementation infra.

[31] *Id.*

[32] *Id.*

[33] The Global Climate Coalition (GCC), which comprises companies opposed to mandatory greenhouse gas emissions reductions, has extensive contact with negotiations from OPEC countries and considerable influence, much to chagrin of environmental groups. CAN reportedly retrieved talking points prepared by one of the GCC

In November, Congressional elections turned the House and Senate over to the Republicans; Republicans would control both houses for the first time since the 1950s.[34] Republicans could now focus on their own agenda – in particular, the so-called "Contract with America"[35] -- rather than react to the President's legislative proposals. The Clinton administration would now have to win over Republicans in order to pass any legislation on environmental matters.[36] And Clinton's foreign policy would face a tough critic in the Senate Foreign Relations Committee: Jesse Helms.[37] According to former Acting Assistant Secretary of State for Oceans and International Environmental and Scientific Affairs Melinda Kimble, because of the Republican control of Congress, the administration had to "build consensus from the ground up on every issue," not just climate.[38] It was thus hard to move forward on any issue, let alone climate, resulting in total gridlock.[39]

---

representatives for use by Kuwait. Climate Action Network, *The Global Climate Coalition – Bad Behavior*, ECO, Vol. 88 No. 6, Feb. 17, 1995, *available at* http://www.climatenetwork.org/eco/6.11.gcc.html (decrying the "blatant tactics" of a GCC representative of "dashing off anonymous interventions and sending them via runners to representatives of his puppet states" during the discussion of adequacy of commitments).

[34] Dan Balz, *A Historic Republican Triumph: GOP Captures Congress; Party Controls Both Houses for First Time Since '50s,* WASH. POST, Nov. 9, 1994, at A1.

[35] Hobart Rowen, *Reverse Gridlock?*, WASH. POST, Nov. 10, 1994, at A25 (expressing concern that the Republican control of Congress and its focus on the Contract with America would lead to "gridlock"). Businesses looked forward to a deregulatory agenda. Mike Mills and Frank Swoboda, *After the Rout, It's a New Landscape for Corporate America; Deregulators See Their Chance to Set the Agenda in Congress*, WASH. POST, Nov. 10, 1994, at B13.

[36] Though many environmental laws had not had moved forward even with Democrats in control of Congress. *See* Tom Kenworthy and Gary Lee, *Environmental Bills Still Due; Congress May Quit Without Sending Clinton a Single Major Measure*, WASH. POST, Sept. 16, 1994, at A4 (Sierra Club political director calls the 103rd Congress "the worst environmental Congress since the first Earth Day in 1970;" revisions of clean water, safe drinking water, endangered species, solid waste, the Superfund program, and fisheries management laws stalled).

[37] John M. Goshko, *U.S. Policy Faces Review By Helms; State Dept. Nemesis to Flex Muscle as Chairman of Foreign Relations,* WASH. POST, Nov. 13, 1994, at A1.

[38] Interview with Melinda Kimble, former Acting Assistant Secretary of State for Oceans and International Environmental and Scientific Affairs (Oct. 4, 2001) [hereinafter Kimble Interview]. Prior to becoming Acting Assistant Secretary in October of 1997, Kimble served in the Bureau of International Organizations at the Department of State.

[39] *Id.* The change in Congress also affected regulatory agencies. *See* Cindy Skrzycki, *New Conservative Climate Chills Agencies' Activism,* WASH. POST, Feb. 18, 1996, at A1 (describing how pressure from Congressional Republicans, budget cutbacks and the Clinton administration's efforts to cut red tape had changed how agencies operate,

C. 1995: INTERNATIONAL NEGOTIATIONS AND U.S. CLIMATE BUDGET REDUCTIONS

In March of 1995, international negotiators met in Berlin, Germany, for the first Conference of the Parties (COP-1) to the UNFCCC to assess progress on meeting the goals of the Convention.[40] In particular, the parties reviewed implementation of Articles 4.2(a) and (b) of the Convention, which required Annex I Parties[41] to "adopt national policies and take corresponding measures on the mitigation of climate change" by limiting emissions of greenhouse gases and enhancing sinks,[42] and to report on these policies and measures, as well as on projected emissions.[43] The Conference of the Parties (COP) concluded in Decision 1/CP.1 that "these subparagraphs are not adequate," and thus agreed to set up a process with the aim of strengthening these commitments through the adoption of a protocol or other legal instrument.[44]

Most notably, the parties at COP-1 agreed to embark upon a process to draft a legal instrument setting emissions reductions for Annex I parties.[45] Furthermore, there would be no new commitments for developing-country parties.[46] At the time, the latter was not a controversial proposition: one of the

---

making them less likely to aggressively pursue violators or enact regulations).

[40] The powers and duties of the Conference of the Parties are set out in Article 7 of the UNFCCC. In particular, the Conference of the Parties "shall make, within its mandate, the decisions necessary to promote the effective implementation of the Convention." UNFCCC, art. 7.2, *available at* http://www.unfccc.de. The INC met for the last time prior to COP-1 in February 1995 (INC-10).

[41] Parties that have made voluntary commitments to reduce greenhouse gas emissions to 1990 levels by 2000. They include the 24 original members of the Organization for Economic Cooperation and Development (including the U.S.), the European Union, and 14 countries with economies in transition (Croatia, Liechtenstein, Monaco and Slovenia joined at COP-3, and the Czech Republic and Slovakia replaced Czechoslovakia). United Nations Framework Convention on Climate Change glossary, *available at* http://www.unfccc.de/siteinfo/glossary.html.

[42] "'Sink' means any process, activity or mechanism which removes a greenhouse gas, an aerosol or a precursor of a greenhouse gas from the atmosphere." UNFCCC, art. 1(8), *available at* http://www.unfccc.de. An example of a sink is a forest, because trees absorb carbon dioxide as they grow.

[43] *Id.* at arts. 4.2(a), (b).

[44] Report of the Conference of the Parties on its First Session, Held at Berlin from March 28 to April 7, 1995, Addendum, Part Two: Action Taken by the Conference of the Parties at its First Session Decision, 1/CP.1, FCCC/CP/1995/7/Add.1, at preamble, *available at* http://unfccc.int/resource/cop1.html. [hereinafter COP-1 Report, Part Two].

[45] *Id.* at art. 2(a)(1).

[46] *Id.* at art. 2(a)(2).

principles of the UNFCCC, which the U.S. had ratified, stated that "the developed country Parties should take the lead in combating climate change and the adverse effects thereof."[47]

In a victory for the United States, the parties also agreed to "establish a pilot phase for activities implemented jointly among Annex I Parties and, on a voluntary basis, with non-Annex I Parties that so request."[48] "Activities implemented jointly," or "joint implementation," refers to emissions reductions, emissions avoidance, or sequestration projects that occur in one country but are sponsored by another, so that the sponsoring country would presumably get some or all credit from the project under a credit regime.[49] Under Secretary for Global Affairs Timothy Wirth called joint implementation the "signature item" of the conference.[50]

The so-called "Berlin Mandate" – in particular, the agreement of "developed countries go first" – would come to haunt the U.S. delegation in future negotiations because of domestic concerns about the trade implications of excluding China, India and Brazil from emissions reduction commitments. So, why did the United States agree to this? Senior officials in the government believed that the only way to move the process forward was to agree that the developed countries would reach an agreement first.[51] The U.S.'s main objective in Berlin was to "keep the EU from pinning us [the U.S.] down on a target and to save JI [joint implementation]."[52] The climate issue did not receive high-level attention at agencies other than the Department of State, though when representatives of the economic agencies weighed in, they expressed concern about compromis-

---

[47] UNFCCC, art. 3.1, *available at* http://www.unfccc.de.

[48] COP-1 Report, Part Two, *supra* note 44, at Decision 5/CP.1, art. 1.

[49] These projects could involve collaborations between investors in Annex I countries and developing countries, or among Annex I countries alone. The Kyoto Protocol established a mechanism called "joint implementation" whereby Annex I parties can receive "emission reduction units" for projects it invests in that are in other Annex I parties (per Article 6 of the Kyoto Protocol). Thus, projects by investors in Annex I parties in developing countries began to be referred to "activities implemented jointly" (AIJ). AIJ projects operate under a pilot phase that expired in 2000.

[50] Referring to U.N. Climate Conference held in Berlin (Apr. 13, 1995), *available at* http://www.facts.com/cd/95059990.htm .

[51] Kimble Interview, *supra* note 38; Interview with Rafe Pomerance, former Deputy Assistant Secretary of State for the Environment (Oct. 10, 2001) [hereinafter Pomerance Interview].

[52] *Id.*

ing current economic growth to deal with a 100-year problem.[53] Thus, at the usual interagency meetings that precede any major international negotiations, people may not have focused on the implications of developed countries agreeing to go first; there were no targets and timetables, so lots of flexibility remained. However, U.S. career-staff at the Berlin negotiations realized that the Berlin Mandate would be "bad news on the Hill," but at this point, Congress was not focusing on the international climate change negotiations or U.S. positions.[54] Agreeing to the Berlin mandate was a "tactical step to keep the process moving."[55]

As noted above, the Clinton administration was unable to focus on climate change in its legislative agenda because it was instead forced to battle with Congress over the federal budget. Republicans in control of Congress pursued a legislative agenda at odds with the Clinton administration, cutting Medicaid, Medicare, education spending, and taxes,[56] in addition to attempting to strip back environmental regulatory protections, and slashing spending on energy efficiency and renewable energy programs[57] and CCAP.[58] In fact, relations degraded to such an extent that on November 14th, over a month into Fiscal Year 1996, parts of the government were shut down for about three weeks because appropriations had not been authorized.[59]

---

[53] Kimble Interview, *supra* note 38.

[54] *Id.*

[55] *Id.*

[56] R.H. Melton, *Clinton Seeks Budget Cooperation*, WASH. POST, June 29, 1995, at A9 (Clinton complained that the balanced budget plan "cuts too deeply into Medicare, Medicaid, education and training while cutting taxes "for too many who don't need it").

[57] Gary Lee, *`Fuelish' Report Outlines Threat to Jobs, Efficiency Gains*, WASH. POST, June 2, 1995, at A21 (proposed congressional cuts to federal energy efficiency and renewable energy spending decried by environmental groups and the Department of Energy); Dan Morgan, *House Panel Backs Big Cuts For Some Energy Research*, WASH. POST, June 14, 1995, at A20 (House appropriations subcommittee proposes deep cuts for solar power research).

[58] Dan Morgan, *Senate Panel Votes to Restore Funds for Housing, EPA Programs*, WASH. POST, Sept. 12, 1995, at A4, (noting Senate Appropriations Subcommittee proposed cuts in funding for CCAP).

[59] Ann Devroy, *Workers Go Home; Talks Go Nowhere; Clinton, GOP at Impasse on Budget*, WASH. POST, Nov. 15, 1995, at A1 (hundreds of thousands of federal workers will stay home for a second day today as Congress and the President fail to find a solution to the budget stalemate); Eric Pianin and John F. Harris, *Clinton Signs Measures to Halt Shutdown*, WASH. POST, Jan. 6, 1996, at A1.

In December of 1995, the Intergovernmental Panel on Climate Change (IPCC)[60] released a draft of its so-called Second Assessment Report (SAR)[61]. This consensus report concluded, in its most publicized finding that "the balance of evidence suggests that there is a discernible human influence on global climate."[62] Climate scientists in the United Kingdom issued a report that 1995 was the hottest year on record.[63]

D. 1996: COP-2 AND THE QUESTION OF BINDING EMISSIONS LIMITS

With the release of the SAR, pressure intensified for negotiators to make progress at COP-2, which was scheduled for July 1996 in Geneva, Switzerland. Assistant Secretary of State for Oceans and International Environmental and Scientific Affairs, Eileen Claussen, chaired a group of assistant secretaries

---

[60] The IPCC was established in 1998 by the United Nations Environment Program (UNEP) and the World Meteorological Organization (WMO) to investigate global warming by reviewing existing scientific data and report its findings. The IPCC consists of over 2,000 scientific and technical experts from around the world. It has three Working Groups: one group "assesses the scientific aspects of the climate system and climate change," another group "addresses the vulnerability of socio-economic and natural systems to climate change, negative and positive consequences of climate change, and options for adapting to it," and the third group "assesses options for limiting greenhouse gas emissions and otherwise mitigating climate change." *See* http://www.ipcc.ch/about/about.htm. The IPCC's Assessment Reports consists of reports from each of the three Working Groups and a synthesis report.

[61] Intergovernmental Panel on Climate Change, Second Assessment Report (December 1995) (SAR). The IPCC Second Assessment Synthesis of Scientific and Technical Information, along with the Summaries for Policymakers of the three Working Groups, constitute the SAR. *Id.* at vii. The First Assessment Report was released in 1990.

[62] *Id.* at 22. The report also reported that, for a mid-range emissions scenario, models projected an increase in global mean surface air temperature relative to 1990 of about 2°C by 2100. *Id.* at 23. This was lower by one-third than the "best estimate' in 1990, due mainly to decreased emissions, increased sulfate aerosols, which cool the atmosphere, and a better understanding of the carbon cycle. Id. Nevertheless, the SAR's prognosis was still bleak: predicted deleterious impacts of climate change include, inter alia, loss of habitat, sea level rise, loss of forest, desertification, and loss of species. *Id.* at 28-35. The SAR also noted that climate systems may be "non-linear," meaning that we may see unexpected behavior once some threshold is reached that "switches" a system on or off. *Id.* at 24.

[63] Nick Nutall, *Hotter-than-ever World Adds to Fear of Climate Change*, THE TIMES OF LONDON, Jan. 6, 1996; Boyce Rensberger, *What's Hot, What's Not*, WASH. POST, Jan. 8, 1996, at A2 (noting the release the previous week of a preliminary report by the Climatic Research Unit at the University of East Anglia in England saying that the climate in 1995 was the warmest in a record that goes back more than a century, but noting that other scientists disagreed with that finding).

from various U.S. agencies that met to discuss climate policy. According to former senior officials in the government, the decision that the U.S. would agree at COP-2 to take on a binding target was vetted at this assistant secretary level group, with White House input.[64] "The implications [of taking on a binding target] were not fully clear at the time," according to former Deputy Assistant Secretary of State for the Environment Rafe Pomerance.[65] "We needed a target in order to make emissions trading work"[66] and the U.S. clearly and strongly supported flexibility mechanisms such as emissions trading. According to Pomerance, the economic agencies did not object, and the White House cleared Wirth's speech announcing the U.S. decision.[67]

At COP-2, Under Secretary for Global Affairs Timothy Wirth announced that the United States would support a legally binding agreement with emissions limitations if other countries would do so.[68] This was the first time the U.S. had publicly expressed support for a legally binding agreement.[69] As Wirth said to *The New York Times*, "This is a big deal . . . Saying that we want to have a target that is binding is a clear indication that the United States is very serious about taking steps and leading the rest of the world."[70] Wirth's statement

---

[64] Interview with David Gardiner, former Director of the White House Climate Change Task Force (Aug. 31, 2001) [hereinafter Gardiner Interview]; Pomerance Interview, *supra* note 51; Kimble Interview, *supra* note 38.

[65] Pomerance Interview, *supra* note 51.

[66] *Id.*

[67] *Id.*

[68] Under Secretary for Global Affairs Timothy E. Wirth, Address before the Second Conference of the parties Framework Convention on Climate Change, Geneva, Switzerland (July 17, 1996), *available at* http://www.state.gov/www/global/oes/960717.html [hereinafter Wirth COP-2 Statement].

[69] *See* INTERNATIONAL INSTITUTE FOR SUSTAINABLE DEVELOPMENT, EARTH NEGOTIATIONS BULLETIN: A SUMMARY REPORT ON THE SECOND CONFERENCE OF THE PARTIES TO THE FRAMEWORK CONVENTION ON CLIMATE CHANGE 1, Vol. 12, No. 38 (July 22, 1996) [hereinafter ENB REPORT ON COP-2] ("The Conference also saw a significant shift in position by the US, which for the first time supported a legally binding agreement to fulfill the Berlin Mandate"). *Id.* At a negotiating session of the Intergovernmental Negotiating Committee (which preceded the Conference of the Parties, prior to entry into force of the Convention), the U.S. had "said only that it supported the need to consider 'new aims' through negotiations under the SBI for the post-2000 period, generally avoiding the word 'protocol.'" INTERNATIONAL INSTITUTE FOR SUSTAINABLE DEVELOPMENT, EARTH NEGOTIATIONS BULLETIN: A SUMMARY REPORT ON THE FIRST CONFERENCE OF THE PARTIES TO THE FRAMEWORK CONVENTION ON CLIMATE CHANGE 10, (Vol. 12, No. 21) April 10, 1995 [hereinafter ENB REPORT ON COP-1].

[70] John H. Cushman, Jr., *U.S. Will Seek Pact on Global Warming*, N.Y. TIMES, July

stressed that "science calls upon us to take urgent action; the IPCC report is the best science that we have, and we should use it."[71]

While much of the press (and delegates' attention) was focused on the United States' public support for binding emissions limits,[72] Wirth's statement also laid out principles that the U.S. believed should underlie the negotiations of an agreement for binding emissions limits and other objectives the U.S. would seek. These principles and objectives are notable because they remained consistent throughout the rest of the tenure of the Administration.

First, Wirth emphasized that the negotiations must focus on outcomes that are "real and achievable."[73] By this, Wirth meant that any targets must be ones that countries could be expected to meet, rather than overly ambitious targets doomed to failure.[74] Secondly, the U.S. would "continue to seek market-based solutions that were flexible and cost-effective."[75] Furthermore, Wirth's statement stressed that "it is the target that should be binding, not the individual measures, thus allowing maximum flexibility in implementation."[76] Third, the U.S. believed that any agreement should "lay the foundation for continuing progress by all nations in the future . . .[because] all nations - developed and developing - must contribute to the solution to this challenge."[77] The United States was committed to ensuring that all countries – developed and developing –

17, 1996.

[71] Wirth COP-2 Statement, *supra* note 68, para. 2.

[72] *Id.* (Comments by the Global Climate Coalition and Environmental Defense Fund focus on the binding target); Karen Capoor and Annie Petsonk, *U.S. Acts on Global Warming at Geneva*, ENVTL DEF. FUND NEWSL, Vol. XXVII, No. 5 (Sept. 1996), *available at* http://www.edf.org/pubs/Newsletter/1996/Sep/h_gwarm.html. "The U.S. statement set off a ripple effect around the world. Surprised delegates sent frantic cables to capitals for further instructions . ." *Id.*

[73] Wirth COP-2 Statement, *supra* note 68, para. 11.

[74] For example, the Alliance of Small Island States (AOSIS) group at a previous negotiating session had proposed a draft protocol requiring Annex I Parties to the protocol to reduce their CO2 emissions by 2005 to a level of at least twenty percent below that of 1990. *See* ENB REPORT ON COP-1, *supra* note 70, at 10.

[75] *Id.* at para. 12.

[76] *Id.* at para. 21. The European Union, on the other hand, sought a requirement that governments mandate specific emission reduction initiatives. *See* EARTH NEGOTIATIONS BULLETIN, SUMMARY OF THE SECOND CONFERENCE OF THE PARTIES TO THE FRAMEWORK CONVENTION ON CLIMATE CHANGE: 8 – 19 JULY 1996 7, Vol. 12, No. 38 (July 22, 1996).

[77] *Id.* at para. 13.

"take steps to limit emissions, consistent with the mandate agreed upon last year in Berlin."[78]

Thus, while the U.S. announced its readiness to embrace a mandatory target, Wirth's statement made clear that the U.S. sought maximum flexibility in implementation, targets that were real and achievable, and some involvement by developing countries to ensure that they took steps to limit emissions as well. The U.S. consistently stuck to these positions in subsequent negotiations.

The statement by Wirth paved the way for the negotiators to agree to the so-called "Geneva Declaration on Climate Change."[79] In this Declaration, ministers and other heads of delegations instructed their representatives "to accelerate negotiations on the text of a legally-binding protocol or another legal instrument to be completed in due time for adoption" at COP-3.[80] The agreement should contain for Annex I parties "quantified legally-binding objectives for emission limitations and significant overall reductions within specified timeframes,"[81] and commitments for Annex I parties regarding policies and measures.[82] Regarding developing countries, the Declaration welcomed their efforts to implement the Convention and make their initial communications,[83] and called upon the Global Environmental Facility[84] to provide support to them,[85] recognizing that continued advancement by developing countries in meeting their commitments depended upon action by

---

[78] *Id.* at para. 19.

[79] Capoor and Petsonk, *supra* note 72. This declaration was included in an Annex to the Report of the Conference of the Parties on its Second Session, Held at Geneva From 8 to 19 July 1996, Addendum: Part Two: Action Taken by the Conference of the Parties at its Second Session, Document FCCC/CP/1996/15/Add.1 [hereinafter COP-2 Report, Part Two].

[80] *Id.* at 73 (paragraph 8 of the Geneva Declaration).

[81] *Id.*

[82] *Id.* This commitment to policies and measures, pushed by the European Union, was vague enough to be acceptable to the United States since it did not specify what the commitments should be.

[83] *Id.* (paragraph 9 of the Geneva Declaration).

[84] The multibillion-dollar Global Environmental Facility (GEF) was established in 1990 by the World Bank, U.N. Environment Program and U.N. Development Program. It operates the Convention's "financial mechanism" on an interim basis and funds developing country projects that have global climate change benefits. United Nations Framework Convention on Climate Change Secretariat- Glossary of Climate Change Acronyms and Jargon, *available at* http://www.unfccc.de/siteinfo/glossary.html.

[85] *Id.*

Annex II parties,[86] in particular access to financial resources and environmentally-sound technology.[87]

The U.S. announcement at COP-2 received widespread attention.[88] While environmental groups were pleased with the U.S. announcement at COP-2, industry groups opposed any binding emissions limitations and were surprised by the U.S. proposal.[89] Given this controversy, the White House tasked Katie McGinty, Council on Environmental Quality chairman, Gene Sperling of the National Economic Council, and Jim Steinberg of the National Security Council to head up policymaking on climate change and increase coordination among agencies in this policymaking process.[90] While the White House had been involved in the policy meetings prior to COP-2, after COP-2 the White House led the climate change policymaking process.

1996 was a Presidential election year, and President Clinton defeated challengers Robert Dole and Ross Perot to win a second term in office.[91] In addition, while the House and Senate remained in Republican control, their margin of control decreased.[92] President Clinton had successfully used his battles with Congress over the budget, especially a shutdown of the federal government at the end of 1995 and beginning of 1996, to hammer Republicans for creating gridlock in the government.[93] With a more favorable balance in the Congress, and

---

[86] Annex II parties are Annex I parties (developed countries) but not the countries with economies in transition.

[87] COP-2 Report, Part Two, *supra* note 79 (paragraph 10 of the Geneva Declaration).

[88] Gary Lee, *U.S. Urges Binding Accord on Global Warming*, WASH. POST, July 18, 1996, at A3; Peter Capella, *Gummer Sounds Alarm Bells on Global Warming*, THE TIMES OF LONDON, July 18, 1996 (noting Wirth's announcement for a realistic but binding target); Cushman, *supra* note 70.

[89] Lee, *supra* note 88. (The Edison Electric Institute, a trade association for the electric power industry, claims mandatory measures would have severe repercussions for the U.S. economy and that voluntary reductions are working; Environmental Defense Fund praises proposal).

[90] Gardiner Interview, *supra* note 64.

[91] Dan Balz, *Clinton Wins by Wide Margin; GOP Holds Control of Congress; First Democrat Since FDR to Get 2nd Term*, WASH. POST, Nov. 6, 1996, at A1.

[92] *Id.*

[93] *See, e.g., Eric Pianin and John F. Harris, Clinton* Signs Measures to Halt Shutdown, WASH. POST, Jan. 6, 1996, at A1 (many Congressional Republicans acknowledge that shutdown had become political liability for them).

some wins under its belt, the administration could perhaps feel more confident about achieving its goals.[94]

E. 1997: BINDING TARGETS, TIMETABLES AND THE KYOTO PROTOCOL

In 1997, the United States government officials involved in climate change focused on the proposal the U.S. would present at COP-3, which would take place in Kyoto, Japan. The White House Climate Change Task Force, headed by Todd Stern, was created in early 1997 to provide support for this process.[95] Stern quickly realized that the administration also needed to communicate better its climate change strategy to constituencies and educate the public about the climate change issue, so public communication and constituency outreach also became a key activity of the Task Force.[96] The administration reached out to stakeholders: the State Department met with industry and environmental groups,[97] and members of the White House Climate Change Task Force talked to environmental groups, labor groups and industry groups, including the power sector.[98]

---

[94] *But see*, Thomas B. Edsall and Mario A. Brossard, *Clashing Coalitions Produce Split in Government Power; Religion, Marital Status Among New Predictors of Partisanship*, WASH. POST, Nov. 7, 1996, at A1 (arguing that two bitterly opposed voting coalitions brought the President and Republicans to power, so battles on the Hill will continue).

[95] *Id.* Todd Stern was formally tapped by the President to coordinate the Administration's efforts on climate change in March of 1998, but he began playing a major role in the Administration on climate change beginning in July 1997. *See* White House Office of Press Secretary, President Clinton Names Todd Stern to Coordinate Climate Change Effort, (Mar. 11, 1998), *available at* http://clinton6.nara.gov/1998/03/1998-03-11-todd-stern-named-to-coordinate-climate-change-effort.html (announcing Stern's appointment and also noting the role Stern has played on climate change from July 1997).

[96] Gardiner Interview, *supra* note 64. For example, Stern organized an event at the White House with weathercasters to discuss climate change with the President and Vice President. *See* White House Office of the Vice President, Remarks by Vice President Al Gore to Weather Forecasters on Global Climate Change, (Oct. 1, 1997), *available at* http://clinton6.nara.gov/1997/10/1997-10-01-vp-remarks-on-global-climate-change.html. This is not to say that the government had not consulted with outside stakeholders prior to the creation of the Task Force; the Department of State had an ongoing dialogue with industry and environmental groups. Pomerance Interview, *supra*, note 51.

[97] Including in particular the National Association of Manufacturers and the Climate Action Network. Milo Mason, *Interview with Stuart E. Eizenstat*, 13 NAT. RESOURCES & ENV'T 2, Fall 1998), at 432.

[98] *Id.*

In addition to reaching out to domestic constituencies, the U.S. continued its discussions with other countries to educate them on the U.S.'s positions and win allies.[99] For example, throughout the year, Under Secretary of Global Affairs Wirth had a series of sessions in Europe and Saudi Arabia, as well as with key ministers from Japan, Australia, Canada, and New Zealand.[100] Other senior officials traveled to Latin America and Asia to discuss U.S. positions.[101] The U.S. found the "most extensive areas of common ground with Australia, Canada, Japan and New Zealand," as well as support from Russia and the Eastern European countries.[102]

However, the U.S. and the European Union were at odds.[103] In March of 1997, the European Union announced its

---

[99] As in most international negotiations, coalitions of countries form to promote common interests. JUSSCANNZ comprised the United States, Switzerland, Canada, Australia, Norway and New Zealand. After Kyoto, the Umbrella Group, which included the JUSSCANNZ members plus Austria, Iceland, Russia and Ukraine, was the main coalition that the U.S. participated in. In the Umbrella Group, the U.S. found allies for its positions on emissions trading (among other issues). To simplify the discussion in this article, I will refer only to the U.S. position rather than the JUSSCANNZ or Umbrella Group position, because they were not always the same. The other main negotiating groups are the EU and the G-77/China group. *See* Marina Cazorla, *Climate Talk: Who's Who? International Negotiating Groups*, Aug. 12, 1999, *available at* http://www.weathervane.rff.org/negtable/negtable01.html.

[100] Under Secretary of Global Affairs Timothy Wirth, Statement before the Senate Foreign Relations Committee, Subcommittee on International Economic Policy, Export and Trade Promotion (Oct. 9, 1997), at para. 6, *available at* http://www.state.gov/www/global/oes/971009tw.html [hereinafter Wirth Testimony].

[101] *Id.*

[102] *Id.* at para. 7.

[103] Because the EU-US dynamic plays such a large role in the international negotiations, it is worthwhile to briefly explore the tensions between these two negotiating units. Former Acting Assistant Secretary for Oceans and International Environmental and Scientific Affairs for the Department of state, Melinda Kimble, notes several differences. First, the Europeans are much more willing to accept tax and regulatory measures to restrict emissions. Their tax burden is high already – they tax gasoline significantly more than it is taxed in the U.S., for example. They also receive more services from their governments, so they accept these high taxes, but U.S. citizens are not tax-friendly (see BTU tax discussion, supra). In addition, the European Union and its member countries tend to set "aspirational standards" they know their firms can't achieve, and these standards are not enforced strictly; it is assumed it will take time for firms to adopt. In the U.S., on the other hand, environmental standards are enforced through litigation and penalties. Thus, the Europeans tend to push for higher "aspirational" emissions reductions. Kimble also claims that Europeans view climate change as a way of increasing energy costs in the U.S. and thus making the European economy more competitive with the American economy. This would explain why the Europeans push for a requirement that most emissions reductions be achieved domestically. Furthermore, the EU political apparatus differs significantly from the U.S. It is beyond the scope of this article to elucidate all the differences, but one key one is

proposal for a treaty in Kyoto: the proposal called for a reduction by all industrialized countries of fifteen percent from 1990 levels by 2010 for the three major greenhouse gases - CO_2, methane and nitrous oxide.[104] The U.S. considered this target "unrealistic and unachievable."[105] In addition, the EU proposed that its member countries be treated as a "bubble," and that a target be set for the entire EU to meet, rather than individual countries.[106] The EU would then decide for itself what emissions reductions – or increases – its member countries would need to meet. The U.S. objected to "bubbling" on various grounds, including how compliance would be addressed (who would be held accountable for a failure to meet the target) and how new EU members would be treated.[107] Despite these concerns, the EU announcement put tremendous pressure on the U.S. to come up with its own plan.[108]

Additional pressure, this time at a personal and high level, came in June, at the meeting of the major industrial powers in Denver for the G-8 Summit. European leaders approached Clinton and began to "press [him] personally and publicly" on global warming.[109] French President Chirac even went so far as to call Americans "great polluters," saying "they generate three times as much CO_2 per capita as the French do."[110] While Clinton agreed that global warming was a serious issue, he did not indicate what specific numbers for emissions limitations the U.S. would accept.[111] One consequence of the European

---

that EU member countries send their environment ministers to climate change negotiations, and these ministers can be much "greener" than the rest of the government and may present positions that may not be supported by the economics or finance ministries. Finally, Europeans are very concerned about their climate being radically affected by climate change, such as the Gulf Stream no longer warming Europe. *See also* Kimble Interview, *supra* note 38.

[104] Anderson, *supra* note 10, at para. 16.

[105] Wirth Testimony, *supra* note 100, at para. 8.

[106] *Id.*

[107] *Id.* at para. 9.

[108] It also created an "unstoppable momentum" towards an agreement with a below 1990 emissions target, according to Pomerance. Pomerance Interview, *supra* note 51.

[109] J.W. Anderson, *Climate Change, Clinton and Kyoto: The Negotiations over Global Warming*, Resources for the Future policy paper, at para. 28 (Nov. 1997), *available at* http://www.weathervane.rff.org/features/feature022.html.

[110] *Id.*

[111] *Id.*

leaders' approaching Clinton was increased attention to the issue of climate change by the President himself.[112]

But, complicating U.S. policy development, on July 25, 1997, the U.S. Senate – which must provide its advice and consent regarding ratification of any treaty - passed a resolution directing the President not to sign any emissions reduction agreement that did not also require the developing countries to reduce or limit emissions. By a vote of 95-0, the Senate passed the Byrd-Hagel Resolution declaring that it was the sense of the Senate that the U.S. should not sign any protocol that (A) mandated new commitments to limit or reduce greenhouse gas emissions "unless the protocol or other agreement also mandates new specific scheduled commitments to limit or reduce greenhouse gas emissions for Developing Country Parties within the same compliance period, or (B) would result in serious harm to the economy of the United States . . ."[113] While intense lobbying by energy industry officials prompted this resolution, Congress was also concerned about the trade implications of the U.S. being held to emissions reductions or limits but not some of its major trade competitors – namely China and India.[114]

The Byrd-Hagel Resolution directly contradicted the Berlin Mandate agreed upon at COP-1: developed countries, which have emitted the vast majority of greenhouse gas emissions already in the atmosphere, should take the first steps in reduc-

---

[112] For example, both President Clinton and Vice President Gore participated in a White House Conference on Climate Change at Georgetown University on October 6, 1997. The President and Vice President engaged in a lively discussion with scientists about the causes of global warming, its impacts, and whether it had started. *See* White House Office of the Press Secretary, Remarks by the President During Presentations at the White House Conference on Climate Change (Oct. 6, 1997), *available at* http://clinton6.nara.gov/1997/10/1997-10-06-president-remarks-during-climate-change-conference.html. The President's State of the Union address in January 1998 called global warming "our overriding environmental challenge." White House Office of the Press Secretary, State of the Union Address by the President, (Jan. 28, 1998), *available at* http://clinton6.nara.gov/1998/01/1998-01-27-state-of-the-union-address-by-the-president.html. While the Clinton administration had from the beginning sought to take action on climate change, the President was distracted from this effort by, for example, his battles with Congress over the budget, especially following the Congressional takeover by the Republicans in 1995, and the campaign to win reelection in 1996.

[113] S. Res. 98, 105th Cong. (1997) (enacted) [hereinafter the Byrd-Hagel Resolution]. The legal effect of this resolution is unclear. The Constitution provides that the President has the power to make treaties with the advice and consent of the Senate, provided two-thirds of those present concur. Article II, section 2.

[114] Anderson, *supra* note 109, at para. 35.

ing emissions. Though the United States had pushed for developing country participation in international negotiations,[115] now it appeared that this participation was a requirement for ratification. Not only would the Clinton administration need to consider what emissions limitations it could accept, then, it also had to decide how to reconcile two conflicting mandates regarding developing countries, one from U.S. Congress and the other from the rest of the world.[116] The resolution also expressed concern about the impact of emissions limitations on the U.S. economy. But as the richest country in the world, undoubtedly the U.S. would have a hard time convincing other countries it could not afford to take action. This conflict in priorities and perception between international and domestic constituencies would complicate the U.S. policymaking process and international negotiations for the rest of the administration's tenure.[117] "Byrd-Hagel polarized the relationship between the administration and Congress on climate change," according to Former Acting Assistant Secretary of State for Oceans and International Environmental and Scientific Affairs Melinda Kimble.[118]

The United States unveiled the proposal it would take to Kyoto on October 22, 1997, in a speech President Clinton gave to the National Geographic Society. First, the United States

---

[115] *See* Wirth COP-2 Statement, *supra* note 68.

[116] And, in another irony, with the exception of the U.S. Agency for International Development, agency funding for climate change projects in developing countries was scarce. Pomerance Interview, *supra* note 51. If the U.S. thought developing countries should work to reduce their emissions, presumably it would direct its funding to assist these efforts. Of course, one must keep in mind that funding for overseas activities is usually not a priority of the Executive Branch or Congress, and the Clinton administration had to pick its funding battles with Congress. Thus, it is not clear that the administration would have had any success if it had pushed for this type of funding.

[117] Under Secretary Wirth succinctly described this difference in perspectives between the U.S. and the developing countries in Congressional testimony:

> "We look at them and point to the cause of the problem in the future; they look at us and point to the cause of the problem now. We look at them and worry about competitiveness; they look at us, and point to our overwhelmingly better lifestyle and standard of living - which most of them are desperate to duplicate, but are being told is beyond their reach because of the environmental consequences. As President Clinton remarked . . . our problem with China is one of national security - it is that China might follow our emissions path, and in so doing would create a world unlivable for us all. We look to Kyoto and demand that all countries participate; developing countries look to Kyoto and agree to take actions - but only after the industrialized world has moved first."

Wirth Testimony, *supra* note 100.

[118] Kimble Interview, *supra* note 38.

would propose that industrialized countries "commit to the binding and realistic target of returning to emissions of 1990 levels between 2008 and 2012."[119] Second, the United States would "embrace flexible mechanisms for meeting these limits," including emissions trading and joint implementation.[120] Finally, President Clinton said that the United States would "not assume binding obligations unless key developing nations meaningfully participate in this effort."[121]

Of course, while its proposal was less stringent than the one set forth by the EU,[122] the administration knew the U.S. stabilizing emissions at 1990 levels by the 2008-2012 time period would still require substantial effort. U.S. emissions of carbon dioxide, the main greenhouse gas, in 1996 were approximately 9.9 percent greater than in 1990.[123] Thus, Clinton also announced various efforts the administration was and would be taking at home to move the U.S. to a path of reduced emissions. These efforts included tax cuts and research and development spending worth up to $5 billion over the next 5 years to encourage energy efficiency and the use of cleaner energy sources,[124] urging "companies to take early actions to re-

---

[119] Clinton's National Geographic Speech, *supra* note 1, at para. 16. According to Pomerance, Clinton's speech originally had called for a 5 percent reduction in emissions, but a member of Clinton's economic team changed 5 to 0 (i.e., stabilization). Pomerance Interview, *supra* note 51. Because an administration group chaired by the National Economic Council and Council on Environmental Quality had failed to agree upon a target, agreement on a target "number" was left to an internal White House process for clearing Presidential speeches. *Id.*

[120] Clinton's National Geographic Speech, *supra* note 1, at para. 18.

[121] *Id.* at para. 19. Stuart Eizenstat, who led the negotiations for the U.S. at Kyoto, later elaborated on what the administration meant by "meaningful participation":

> [it] means for us the wealthiest countries on a per capita income basis, and the biggest emitters assume, over a reasonable period of time, binding commitments. They do not necessarily have to be the same commitments as the developed world is taking.

Interview with Stuart Eizenstat, Under Secretary of State for Economic, Business, and Agricultural Affairs (Nov. 26, 1997), *available at* http://www.state.gov /www/global/oes/971126_eizenstat.html.

[122] In October, Japan and a group of 77 developing countries also announced what emissions reductions targets they would be seeking at Kyoto. Japan sought a 5 percent reduction in emissions by 2012; the developing countries offered an aggressive proposal to limit emissions at thirty-five percent below 1990 levels by 2020.

[123] Author's calculation based on data compiled by the Energy Information Administration (EIA). Energy Information Administration, Summary of Estimated U.S. Emissions of Greenhouse Gases, 1990-1999, *available at* http://www.eia.doe.gov/oiaf/1605/ggrpt/tbles1.html (last modified Oct. 31, 2000).

[124] *Id.* at para. 22. This package of domestic actions became known as the Climate Change Technology Initiative (CCTI), a package of spending and tax incentives de-

duce emissions by ensuring that they receive appropriate credit for showing the way,"[125] increasing the role of the federal government – one specific goal he set was to install 20,000 solar roofs on federal buildings by 2010,[126] and bringing competition to the electricity industry.[127]

Documents released by the White House Climate Change Task Force provided additional context and background to the U.S. Kyoto strategy. President Clinton's plan was based on five key principles: (1) the policies should be guided by science, (2) the policies should rely on market-based common sense tools (such as international emissions trading), (3) the U.S. should seek "win-win solutions" such as technologies that reduce inefficiencies, thus saving money, and reduce emissions, (4) global participation is essential to addressing a global problem (in other words, developing countries must participate), and (5) the U.S. government must have "regular common-sense reviews" of the economics and science of climate change.[128] Guided by these principles, the administration's plan would proceed in three stages.[129] First, the administration would pursue the efforts described above and conduct an economic

---

signed to stimulate the use of energy efficient technologies in buildings, industrial processes, vehicles, and power generation. The administration would request $6.3 billion (not $5 billion) for these activities. THE ACCOMPLISHMENTS OF THE CLINTON ADMINISTRATION ON CLIMATE CHANGE, *supra* note 3, at 7-8

[125] EIA Summary, *supra* note 123, at para. 23. Various legislative proposals have been introduced to provide credit for entities that take action to reduce emissions prior to the enactment of any mandatory emissions reduction scheme.

[126] *Id.* at para. 25.

[127] *Id.* at para. 26. Whether deregulating the electricity industry will reduce greenhouse gas emissions is a matter of debate – renewable energy is generally more expensive than coal or natural gas, so the ability to sell power openly on the market could lead to companies running old polluting inexpensive coal plants at the highest levels possible and selling the cheap energy where it couldn't be sold before, because of market restrictions. Clinton's speech noted that deregulation must occur "in a way that leads to even greater progress in cleaning our air and delivers a significant down payment in reducing greenhouse gas emissions." *Id.* The administration's deregulation proposal called for a requirement that at 5.5 percent of electricity sales be generated from non-hydroelectric renewable sources, subject to a cost cap and included include a $3 billion Public Benefits Fund, to support conservation and energy efficiency measures, research and development into clean and efficient technology, and deployment of renewable energy technologies. White House Office of the Press Secretary, The Clinton Administration's Comprehensive Electricity Competition Plan, (Mar. 25, 1998), *available at* http://clinton6.nara.gov/1998/03/1998-03-25-electricity-plan-paper.html.

[128] President Clinton's Climate Change Proposal (Oct. 22, 1997), *available at* http://www.state.gov/www/global/global_issues/climate/background.html

[129] *Id.*

review near the end of this first stage.[130] The second stage, which would begin around 2004, would include a review of progress and next steps as the U.S. moved "toward a market-based permit trading system for carbon emissions." A second economic review would occur near the end of this stage.[131] The third stage would be a reduction of emissions to 1990 levels in the 2008-2012 period, and below 1990 levels in the 5-year period after that. However, prior to beginning the third stage, "the second economic update and review would allow Congress and the President to evaluate how the economy had responded to a decade's worth of experience in the first two stages of the President's plan."[132]

Clinton's speech at the National Geographic Society and the White House's follow up documents accomplished the following crucial objectives. Clinton's speech informed the American public about the seriousness of global warming and the strong science behind the conclusion that human activity was affecting the climate.[133] The administration told the public what it was going to do to stave off global warming, domestically and internationally. The administration also let the international community know what it would put on the table in Kyoto. Industry was given notice that the administration planned to move to a permit-based trading system, and what target the administration would seek. The administration also told Congress it would seek the participation of developing countries and conduct economic analyses, as called for in the Byrd-Hagel Resolution. And, finally, all of these proposals were designed to "create an incentive, a market incentive, for people to adopt behaviors that will reduce greenhouse gas emissions."[134] Now, all the U.S. needed to do was get the rest of the world on board with its proposal at Kyoto.

---

[130] *Id.*

[131] *Id.*

[132] *Id.*

[133] Clinton's National Geographic Speech, *supra* note 1, at para. 12 -13.

[134] White House Kyoto Press Conference, *supra* note 20. Fuerth mentioned the following elements: a "positive price incentive" through research and development spending and tax relief, a greater consciousness to use energy efficient technologies through public awareness campaigns and labeling, increasing demand for American energy efficient technology abroad by involving developing countries in reducing greenhouse gas emissions, and the certainty of a target and timetable allowing businesses to plan. *Id.*

Immediately prior to the Kyoto negotiations, U.S. negotiators went to Oslo, Norway, for discussions on a proposed land mine treaty that the U.S. opposed. Negotiators were greeted with signs saying "U.S. Go Home."[135] In the end, the U.S. did not sign on to the treaty and was left isolated. Following this failure, according to Kimble, the Kyoto delegation was told, "Please don't let this be another Oslo."[136] In addition, because of deep reservations about the economic impact of binding limitations, negotiators were told to "keep as many options on the table to keep costs low."[137]

1. The Kyoto Negotiations: The U.S. Achieves Most of Its Objectives

On December 11, 1997, following almost two weeks of negotiations, with the official last day of negotiations stretching out to the following morning,[138] parties reached a landmark agreement to reduce greenhouse gas emissions, the Kyoto Protocol.[139] While the U.S. did not achieve all its negotiating objectives,[140] the emissions targets and timetables and menu of market-based options to achieve them all reflect U.S. proposals.[141]

---

[135] Kimble Interview, *supra* note 38.

[136] *Id.* Pomerance also noted that the experience at the Oslo land mines conference affected the U.S. position at the Kyoto negotiations. *See also* Pomerance Interview, *supra* note 51.

[137] Kimble Interview, *supra* note 38.

[138] And with the much publicized intervention of the Vice President of the United States, Albert Gore, Jr., who flew to Japan to instruct the U.S. negotiations to show flexibility. Kevin Sullivan and Jo Warrick, *Gore Speech On Climate Is Criticized; Visit to Kyoto Talks Leaves Many Confused About U.S. Message*, WASH. POST, Dec. 9, 1997, at A1 (Gore instructs U.S. negotiators to show more flexibility but offered no specifics). According to the lead U.S. negotiator, the Vice President's trip "energized delegations." Press Conference by Under Secretary of State for Economic and Business Affairs Stuart Eizenstat, Kyoto, Japan, as released by the U.S. Delegation at the Climate Change Conference (Dec. 11, 1997), *available at* http://www.state.gov /www/global/oes/971211 _eizen_cop.html [hereinafter Eizenstat Kyoto Press Conference].

[139] For a description of what the round the clock negotiations were like for the U.S., see Sperling's remarks, White House Kyoto Press Conference, *supra* note 20.

[140] According to Pomerance, the U.S. might have had more success at Kyoto had it negotiated with the EU and the developing countries at one table, rather than meeting with these groups separately. Pomerance Interview, *supra* note 51. Presumably, then, the U.S. could have tied concessions made *to* one negotiating group to concessions made *by* the other.

[141] The following discussion relies mostly on a fact sheet prepared by the State Department on the Kyoto Protocol. Bureau of Oceans and International Environmental

a. A Five-Percent Reduction in Greenhouse Gas Emissions

Industrialized countries agreed to reduce on average greenhouse gas emissions by five percent below 1990 emissions, with the U.S. agreeing to a seven percent reduction.[142] As discussed above, in October President Clinton said the U.S. would agree to stabilize emissions at 1990 levels, not reduce emissions by seven percent. However, given the structure of the deal reached in Kyoto, U.S. negotiators believed that in essence the U.S. would have to make the same emissions reductions effort as announced by the President, or "at most a three percent real reduction below the President's initial proposal."[143] The issue of sinks and synthetic gases is discussed in greater detail below.

b. Reductions over Five-Year Period Beginning in 2008

Emissions targets are to be reached over a five-year budget period and the first period does not begin until 2008.[144] This was exactly as the U.S. had proposed. By allowing emissions to be averaged over a period of years, short-term fluctuations in economic performance or weather can be smoothed out.[145] The U.S. also pushed for at least a decade before the target period began to give time to U.S. businesses to "make the transition to greater energy efficiency and/or lower carbon technologies."[146]

---

and Scientific Affairs, Department of State, Fact Sheet on the Kyoto Protocol on Climate Change, (Jan. 15, 1998), *available at* http://www.state.gov/www/global/oes/fs_kyoto_ climate_980115.html [hereinafter Kyoto Fact Sheet]. Two transcripts of press conferences held immediately following the negotiations also provide the Administration's point of view, in a more colorful fashion, on what the U.S. achieved in Kyoto. *See*, Eizenstat Kyoto Press Conference, *supra* note 137.

[142] The Kyoto Protocol to the United Nations Framework Convention on Climate Change, 3d Sess., [1997] U.N. Doc FCCC/CP/1997/L.7/Add.1/1997, art. 3.1 (overall goal of 5 percent) and art. 3.7 (describing assigned amounts for Parties in Annex I) *reprinted in* 37 I.L.M. 32 (1998) [hereinafter Kyoto Protocol]. Each country's "quantified emissions limitation or reduction commitment" is contained in Annex B to the Kyoto Protocol.

[143] Kyoto Fact Sheet, *supra* note 141. Pomerance notes that because the U.S. had failed to agree on a target below stabilization prior to Kyoto, the U.S. was "boxed in" at the negotiations. Pomerance Interview, *supra* note 51. It was not clear what the U.S. wanted, whereas the EU had earlier and emphatically agreed to a 15 percent reduction.

[144] Kyoto Protocol, *supra* note 142, at art. 3.1.

[145] Kyoto Fact Sheet, *supra* note 141.

[146] *Id.*

c. Targets Include all Six Greenhouse Gases

All six major greenhouse gases – carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride – are covered by the targets.[147] The latter three are substitutes for chlorofluorocarbons and are highly potent and long-lived. Because of the lack of data for emissions of these gases in 1990, a 1995 baseline for these gases will be used.[148] This shift to a higher baseline for the U.S. "accounts for about one percent of the seven percent reduction."[149]

d. Sinks Activities

Certain activities that absorb carbon – sinks – may be counted against emissions reductions targets.[150] The U.S. wanted to encourage the planting of trees and other agricultural and forestry activities that would sequester carbon.[151] The accounting method adopted in Kyoto differs from the one the U.S. originally used. The U.S. assumed that the 1990 baseline would be lowered by carbon-absorbing activities, but it is not.[152] This accounts for another three percent of the seven percent reduction.[153]

---

[147] Kyoto Protocol, *supra* note 142, at art. 3.1 and Annex A, which lists the greenhouse gases to be included.

[148] *Id.* at art. 3.8.

[149] Kyoto Fact Sheet, *supra* note 141.

[150] Kyoto Protocol, *supra* note 142, at art. 3.3 and 3.4. Article 3.3 provides in part that the "net changes in greenhouse gas emissions by . . . sinks . . . limited to afforestation, reforestation and deforestation since 1990 . . shall be used to meet the commitments under this Article of each Party included in Annex I." Article 3.4 is more complicated. It provides in part that the Conference of the Parties "shall . . . decide upon modalities, rules and guidelines as to how, and which, additional human-induced activities related to . . . sinks in the agricultural soils and the land-use change and forestry categories shall be added to, or subtracted from, the assigned amounts for Parties included in Annex I . . ."*Id.*

[151] Kyoto Fact Sheet, *supra* note 141.

[152] *Id.* As senior official Leon Fuerth put it succinctly, the Kyoto formulation is "a more generous scoring of forests than we had in our [proposal]." White House Kyoto Press Conference, *supra* note 20.

[153] Kyoto Fact Sheet, *supra* note 141.

e. Emissions Trading

Parties may use emissions trading to achieve targets.[154] The agreement to permit emissions trading was another U.S. success. Emission trading allows countries that are able to reduce emissions cheaply to sell such emissions credits to countries that otherwise might have to undertake expensive emissions reduction efforts.[155] This preserved flexibility and made the agreement cost-effective, in the view of the U.S.[156] In addition, if the European Union could, in effect, trade emissions amongst its members by virtue of applying one target to all EU members (the EU "bubble"),[157] then other countries should be able to trade as well.

f. Joint Implementation

The Protocol permits developed countries to acquire and trade "emissions reductions units" from projects in developed countries. [158] In other words, developed country A may sell

---

[154] Kyoto Protocol, *supra* note 142, at art. 17 (which provides in part that "[t]he Parties included in Annex B may participate in emissions trading for the purpose of fulfilling their commitments under Article 3. Any such trading shall be supplemental to domestic actions for the purpose of meeting [these commitments]"). How "supplemental" trading had to be would be a matter of great debate between the European Union and the U.S. and its supporters. *See also* Articles 3.10 (additions to the acquiring Party's assigned amount) and 3.11 (subtractions from the transferring Party's assigned amount).

[155] Interestingly, several key developing countries (India, China and Indonesia) strongly opposed emissions trading during the Kyoto Conference, almost leading to a breakdown in negotiations. *See* White House Kyoto Press Conference, *supra* note 20. Why would developing countries care if developed countries use emissions trading? Developed countries might use emissions trading instead of undertaking emissions reductions at home -- especially Russia, which, due to the collapse of its economy, would have many excess credits to sell. *See* J.W. ANDERSON, THE KYOTO PROTOCOL ON CLIMATE CHANGE: BACKGROUND, UNRESOLVED ISSUES, AND NEXT STEPS, 16 (Jan. 1998).

[156] *See* Kyoto Fact Sheet, *supra* note 141 ("Structured effectively, emissions trading can provide a powerful economic incentive to cut emissions while also allowing important flexibility for taking cost-effective actions.").

[157] In fact, at the U.S. press conference on the last day of the negotiations, Under Secretary Eizenstat announced the formation of an "umbrella" group composed for trading of the new emissions rights, which would consist of the U.S., Canada, Japan, New Zealand, Australia and Russia. Other countries were welcome to join. *See* Eizenstat Kyoto Press Conference, *supra* note 137.

[158] Kyoto Protocol, *supra* note 142, at art. 6. *See also* art. 3.10 (addition of project-based emissions reductions units to the acquiring Party's assigned amount) and 3.11 (subtraction of project-based emissions reductions units from the transferring Party's

emissions reductions units generated from a project in its country to developed country B. Participation by the private sector (companies) is allowed.[159]

g. Clean Development Mechanism

Clean Development Mechanism (CDM) allows for developed country parties to use certified emissions reductions generated by projects in developing countries.[160] One of the most innovative features of the Kyoto Protocol is the CDM. It will allow developed country parties to use certified emissions reductions generated by projects in developing countries towards their targets.[161] The U.S. saw this as part of the "down payment" in the Kyoto Protocol on developing country participation.[162] Participation by private sector entities is permitted,[163] and projects can begin to generate credits as early as the year 2000.[164] Thus, Annex I parties can look all over the world to find the cheapest emissions reductions, and incentives are created to transfer technology to the developing world.[165] In addition, a small portion of the proceeds of the CDM is directed to "assist developing country Parties that are particularly vulner-

---

assigned amount).

[159] *Id.* at art. 6.3.

[160] *Id.* at art. 12. *See also* art. 3.12 (certified emissions reductions acquired under Article 12 shall be added to the assigned amount of the acquiring Party).

[161] Though the CDM evolved from a proposal by Brazil, some developing countries opposed the CDM on the grounds that it constituted "environmental colonialism," presumably because they feared developed countries would use CDM investments to dictate how Third World countries would develop. Anderson, *supra* note 155. While the CDM would promote investment, developing countries were more interested in developed countries meeting their commitments for "new and additional financial resources." Kyoto Protocol, *supra* note 142, at art. 11.2(a); UNFCCC, *supra* note 43, at art. 4.3 (to meet developing countries' full costs in compiling an inventory of greenhouse gases emissions sources and sinks); Anderson, *supra* note 155, at 16-17.

[162] Kyoto Fact Sheet, *supra* note 141.

[163] Kyoto Protocol, *supra* note 142, at art. 12.9.

[164] *Id.* at Article 12.10.

[165] Or, as Gene Sperling put it:

> [The CDM] also creates market incentives in which, through partnerships with other countries, there's opportunities to have, you know, win-win situations where you would be helping retool aspects of another country's economy, but in ways that would profit to American companies and make it easier for us to hit our targets.

White House Kyoto Press Conference, *supra* note 20.

able to the adverse effects of climate change to meet the costs of adaptation."[166]

h. Developing Countries

Despite achieving most of its negotiating objectives, the U.S. did not secure meaningful participation by developing countries. Parties failed to agree to include a proposed Article 10, which would have allowed developing countries to volunteer to take on a binding emissions target.[167] Argentina and a number of other developing countries tried to reopen discussions on this article, but other developing countries evidently blocked this discussion.[168] While the CDM would provide an incentive for emissions reductions projects in developing countries, Under Secretary Eizenstat admitted that this was not sufficient developing country involvement. [169]

i. Issues and Details Remaining after Kyoto.

While the Kyoto Protocol set the stage for a binding regime with emissions targets, many details remained to be spelled out in order to make the agreement workable. Some important issues were left unaddressed:

> • *Compliance*: Article 18 directed the Conference of the Parties serving as the meeting of the Parties to the Protocol (affectionately known as the "COP/MOP") to take up the issue of compliance. What would be the consequences of not meeting a target? Who decides who is in compliance with a target? Should only developed country parties judge compliance with targets since they are the parties with that obligation? How do you assess compliance with provisions such as Article 3.14, which states that Annex I parties "shall strive to implement the [emissions reduction] commitment . . . in such a way as to minimize adverse social, environmental and economic impacts on developing country Parties?

---

[166] Kyoto Protocol, *supra* note 142, at art 12.8.

[167] Eizenstat Kyoto Press Conference, *supra* note 137.

[168] *Id.*

[169] *Id.* ("Clearly, despite the very important step taken through the Brazilian process of creating a Clean Development Mechanism for Credit, that meaningful participation has not yet been taken as a result of the steps that were done here."). *Id.*

• *Sinks*: What activities could be credited under Article 3.4? Are sinks counted 100 percent or are they discounted?

• *Emissions trading*: Who will be allowed to trade emissions rights – just government or also private firms? What rules will apply? Who will monitor and broker emissions trades?

• *Supplementarity*: If emissions trading is to be "supplemental" to domestic action, what does "supplemental" mean, if anything? Does it mean that over half of a country's efforts to reduce emissions must come from domestic action, or is supplemental non-quantifiable?

• *Making the CDM operational*: Emissions reductions are supposed to be certified by "operational entities"[170] – what would these entities be and how would they make their decisions? What would be the certification criteria and how open would the decision-making process be? How would these projects be audited and verified?[171] What criteria if any would be used to determine if a project helped a developing country Party "in achieving sustainable development"?[172] For example, are nuclear power plants permissible projects? Sinks projects?[173]

• *Fungibility (transferability).* The Kyoto Protocol mentions certified emissions reductions (under the CDM), emissions reduction units (from joint implementation) and transfer of assigned amounts (under emissions trading). A key question for the private sector question is whether these "units" are all interchangeable. If they are not, then it would effect

---

[170] Kyoto Protocol, *supra* note 142, at art. 12.5.

[171] *Id.* at art. 12.7.

[172] Article 12.2 provides that part of the purpose of the CDM "shall be to assist Parties not included in Annex I in achieving sustainable development . . ." *Id.* at art. 12.2.

[173] Environmental groups expressed concern about including sinks, clean coal or nuclear projects in the CDM. *See, e.g.* Nuclear Power Not Part of Global Warming Solution, World Wildlife Fund Press Release (Apr. 6, 2000); *Renewable Energy, Energy Efficiency & the CDM*, Greenpeace (Nov. 2000), *available at* http://www.greenpeace.org/~climate/climatecountdown/renewsinks.pdf (stating that CDM should only include state-of-the-art renewable energy or high-value demand side efficiency technologies, not coal or sinks). With regard to sinks, some environmental groups were concerned that including sinks in the CDM would provide an incentive to log existing trees and replace them with fast-growing trees (like eucalyptus), in order to gain sequestration credits. *See, e.g. The Clearcut Case: How the Kyoto Protocol Could Become a Driver for Deforestation*, World Wildlife Fund, *available at* http://www.panda.org/resources/publications/climate/carbonsinks/carbonsinks.html.

> the liquidity of any market that developed for trading these units.

Thus, despite addressing and resolving a number of difficult issues, including binding targets and timetables, negotiators still had a full plate to tackle before they could bring back a ratifiable agreement to their respective governments. In particular, the U.S. needed to educate many countries about the value of market mechanisms such as emissions trading and how these mechanisms would work,[174] in order to make progress in future negotiations so that these provisions would be operational.[175] Furthermore, developing countries had their own, strikingly different agenda: to compel developed countries to provide the new and additional financial resources and technology transfer called for in both the UNFCCC and the Protocol.[176]

The U.S. also faced a number of challenges at home. To satisfy Congress, the U.S. still needed to obtain meaningful participation by developing countries and to show that the Kyoto approach would not hurt the U.S. economy. Key industry groups, such as coal, oil, electric utility, and car companies, opposed the agreement.[177] And while news reports suggest that President Clinton and Vice President Gore felt that failure to reach agreement would have "enraged environmentalists," [178]

---

[174] As stated by Under Secretary Eizenstat, "When we first proposed these type [sic] of market-based mechanisms in Kyoto, it was almost a foreign concept to other government. They had no experience. . . . So our leadership there [at Kyoto] and our experience in this area are really critical." Mason, *supra* note 97, at 433.

[175] The importance to the U.S. of this effort on market mechanisms cannot be understated. The agreement would not be cost-effective for the U.S. if these mechanisms were not available. Under Secretary Eizenstat made this clear in testimony before the Senate soon after Kyoto, "Ensuring that we can meet our target reductions cost-effectively will depend significantly on access to the flexibility mechanisms we fought hard to include in the Kyoto Protocol. Let me be very clear: The commitment we made in Kyoto would not have been made – could not have been made – were it not for the flexibility mechanisms that were also agreed there. Until we are satisfied with the rules and procedures yet to be established, the promise of Kyoto will never be realized." Statement of Stuart E. Eizenstat, Under Secretary of State for Economic, Business and Agricultural Affairs before the Senate Committee on Agriculture, Nutrition and Forestry (Mar. 5, 1998) [hereinafter Eizenstat Senate Committee Statement].

[176] *See, e.g.*, Kyoto Protocol, *supra* note 142, at art. 10(c) (technology transfer) and art. 11 (financial mechanism).

[177] *See, e.g.*, Kevin Sullivan, *Lobbyists Turn Up the Heat at Global Warming Forum; Industry Makes Its Case Against Proposed Treaty*, WASH. POST, Dec. 4, 1997, at A1.

[178] James Bennet, *Warm Globe, Hot Politics: For Clinton and Gore, Fight Looms in the Senate*, N. Y. TIMES, Dec. 11, 1997.

some environmental groups may have preferred such failure because they believed that the agreement amounted to legitimizing a betrayal and compromise of the UNFCCC's core objectives. The World Wildlife Fund called Kyoto "a flawed agreement that will allow major polluters to continue emitting greenhouse gasses through loopholes."[179]

F. 1998: INTERNATIONAL AND DOMESTIC RESISTANCE TO U.S. CLIMATE STRATEGY

In testimony before the Senate in March 1998, Under Secretary of State Eizenstat laid out the administration's agenda following the Kyoto Protocol. First, the U.S. would work hard to "ensure that the rules and procedures adopted enable emissions trading, joint implementation and the Clean Development Mechanism to work smoothly and efficiently . . .[and to] work closely with our industries to be sure they are satisfied that the emissions trading system which is developed is as efficient and effective as possible to meet their needs."[180] The international effort would include workshops in trading held by the U.S. and the EU and work by the U.N. Commission on Trade and Development (UNCTAD) with developing countries.[181] Second, the U.S. would "put on a full court diplomatic press to bring developing nations into a meaningful role in helping solve the global climate challenge."[182] This effort would include bilateral agreements and using regional and multilateral fora such as the Summit of the Americas process.[183] It would also include working with international financing institutions such as the World Bank to promote in developing countries investments in clean energy and energy efficient technology and market-based energy sector policies that will help reduce greenhouse gas emissions.[184] Eizenstat also called on Congress to fully fund the Administration's request for contri-

---

[179] *Id.* However, Fred Krupp, executive director of the Environmental Defense Fund (now called Environmental Defense), said that while much work remained to be done on the agreement, "Vice President Gore should be commended for coming to Japan and opening the doors to an agreement." *Id.*

[180] Eizenstat Senate Committee Statement, *supra* note 175.

[181] Mason, *supra* note 97, at 433.

[182] Eizenstat Senate Committee Statement, *supra* note 175.

[183] *Id.*

[184] *Id.*

butions for UNFCCC work – in particular the U.S.'s pledge to the Global Environmental Facility (GEF), to which the U.S. owed $300 million.[185]

The Administration announced a $6.3 billion Climate Change Technology Initiative to cut U.S. greenhouse gas emissions over the next 5 years.[186] The initiative consisted of $3.6 billion in tax credits for energy-efficient purchases and renewable energy and $2.7 billion for new research and development (R&D) spending over 5 years.[187] The proposal covered tax credits for consumers who purchased advanced technology, highly efficient vehicles, extensions of wind and biomass power tax credits, research and development spending for highly efficient cars, and a $100 million increase in appropriations for solar and renewable energy research and development.[188]

Why didn't the administration submit a legislative package on emissions reductions in order to put the U.S. on track to meet its Kyoto targets? The Kyoto decision had gotten considerable, mostly favorable press coverage in the United States.[189] However, in January of 1998 news broke that the President had had an affair with White House intern Monica Lewin-

---

[185] *Id.*

[186] *Id.* As noted previously, this proposal evolved from the President's announcement in October 1997. The $6 billion proposal was first outlined in the President's State of the Union address in January. The White House Office of the Press Secretary, State of the Union Address by the President, (Jan. 27, 1998) *available at* http://clinton6.nara.gov/1998/01/1998-01-27-state-of-the-union-address-by-the-president.html.

[187] Eizenstat Senate Committee Statement, *supra* note 175.

[188] *Id.*

[189] *See, e.g., Kyoto Accord Is a Start Along the Right Track*, L. A. TIMES, Dec. 11, 1997, at 8; *One Step Forward at Kyoto Global Warming*, ST. LOUIS POST DISPATCH, Dec. 12, 1997, at D22 (editorial praising agreement); Joby Warrick, *Climate Pact Rescued in Final Hours; Turbulence Pervaded First Round of Greenhouse Gas Talks*, WASH. POST, Dec. 13, 1997, at A1; *Up to Speed; The Week's Top Stories; Global Warming Pact OK'd*, ATLANTA J.-CONST., Dec. 14, 1997), at D2; Indira A.R. Lakshmanan, *Accord Set on Cutting Emissions; 160 Nations in Agreement; US Hails `Historic First Step'*, BOSTON GLOBE, Dec. 11, 1997, at A1; Maggie Farley, *Summit Decrees 6% Reduction in Main Global Warming*, L. A. TIMES, Dec. 11, 1997, at 1. Commentators recognized Kyoto's uphill battle in the Senate and that implementation would require substantial work by the Administration. *See, e.g.*, James Gerstenzang, *Global Warming Accord Faces Tough Fight in Senate*, L. A. TIMES, Dec. 11, 1997, at 12; Tom Teepen, *Sensible Public Can Save Global Warming Treaty*, ATLANTA CONST., Dec. 16, 1997, at A27 (editorial saying that public can be administration's biggest ally in getting Kyoto Protocol through the Senate); Fred Hiatt, *Lukewarm Results on Climate Control*, WASH. POST, Dec. 15, 1997, at A27 (editorial saying that to make treaty evolve into something meaningful "will take a sustained and committed administration campaign at home and overseas").

sky.[190] Once that happened, "the administration could do nothing," said former Acting Assistant Secretary of State for Oceans and International Environmental and Scientific Affairs Melinda Kimble.[191] More specifically, once the Lewinsky affair took political center stage, it became difficult for Clinton to move forward with any policies, domestic or international. In addition, more importantly, the administration also lacked a domestic consensus to take action, as there were serious concerns about the costs of undertaking domestic emissions reductions.[192]

The administration faced "real hostility" from several members of Congress upset about the Kyoto Protocol.[193] The U.S. delegation members were caught up in Congressional subpoenas and hearings and agencies were inundated with letters from Congress submitting questions on climate.[194] Administration officials that needed confirmation from the Senate were held up.[195] Fueling the fire was an EPA document asserting that the EPA had the authority to regulate carbon dioxide under the Clean Air Act, which caused some to worry that the administration might try to establish a domestic regulatory scheme for carbon dioxide prior to ratification of the Kyoto Protocol.[196] To address some Congress members' concern that the

---

[190] *See, e.g.*, Susan Schmidt et al., *Clinton Accused of Urging Aide to Lie; Starr Probes Whether President Told Woman to Deny Alleged Affair to Jones's Lawyers*, WASH. POST, Jan. 21, 1998, at A1 (reporting that Independent Counsel Kenneth Starr was expanding his investigation of Clinton to see whether Clinton encouraged Monica Lewinsky to lie to lawyers for Paula Jones about her affair with the President); Peter Baker and Susan Schmidt, *FBI Taped Aide's Allegations; Seeking Cooperation, Bureau Confronted Ex-White House Intern*, WASH. POST, Jan. 22, 1998, at A1 (FBI tapes Lewinksy saying that Clinton urged her to lie about their sexual relationship).

[191] Kimble Interview, *supra* note 38. Pomerance agrees that after the scandal hit, the administration "had no traction." Pomerance Interview, *supra* note 51.

[192] Kimble Interview, *supra* note 38.

[193] *Id.*

[194] *Id.*

[195] *See, e.g.*, Michael Tebo, Senate Nominees Block Nominee for Top State Department Post Until White House Releases Its Climate Costs Analysis, (July 17, 1998), *available at* http://www.weathervane.rff.org/negtable/nominee_blocked.html). (Senator Chuck Hagel says that his panel will not act on the nomination of Frank Loy for Under Secretary of State for Global Affairs until the White House releases information demanded by Congress). *Id.*

[196] An EPA document entitled "Electricity Restructuring and the Environment: What Authority Does EPA Have and What Does it Need," stated that EPA could regulate carbon dioxide. *See* Theresa Sotto, House Members Assert EPA Cannot Regulate CO2 under the Clean Air Act, (Mar. 20, 2000), *available at* http://www.weathervane.rff.org/features/feature090.html. Congressman Tom DeLay

Clinton administration was moving too fast on climate change, Representative Knollenberg attached an amendment to a Fiscal Year 1999 appropriations bill stipulating that no funds could be used "for the purpose of implementation, or in preparation for implementation, of the Kyoto Protocol."[197] These battles with Congress over the administration's strategy and approach for addressing climate change would continue until the end of the Administration.

Congressional concerns about the costs to the U.S. of compliance with Kyoto prompted the administration to prepare an economic analysis of Kyoto. In March, Council of Economic Advisers (CEA) Chair Dr. Janet Yellen testified before the House Commerce Committee that compliance with Kyoto would mean for household consumers an increase of three to five percent in energy costs in the years 2008-2012, or in other words, it would raise the average household's energy bill in ten years by between $70 and $110 per year.[198] While Yellen did

---

questioned this interpretation, prompting EPA Administrator Carol Browner to ask for a legal opinion from her General Counsel. *Id.* One month later the then General Counsel Jonathan Z. Cannon submitted a memo to Browner stating that EPA did have authority under the Clean Air Act to regulate carbon dioxide since it met the definition of "pollutant" in the Act. Id. Several members of Congress disagreed, prompting a series of correspondence between the Hill and EPA on the matter. Browner eventually stated at a hearing in February 2000 that regulating carbon dioxide was not within EPA's authority, though EPA's general counsel contended that while the Administration currently did not have any intention of enacting such a program, if it wanted to, it could. *Id.* (citing EPA General Counsel Gary Guzy affirming the opinion of his predecessor); Jennifer B. Thatcher, EPA Administrator Browner Cites Global Warming as One of Top Environmental Problems," (Feb. 24, 2000), *available at* http://www.weathervane.rff.org/features/feature088.html (describing Browner testimony about lack of EPA authority on carbon dioxide).

[197] Departments of Veterans Affairs and Housing and Urban Development, and Independent Agencies Appropriations Act, H.R. 4194 (1999) (under "Environmental Programs and Management"). According to Knollenberg, the "main purpose" of his amendment was to "ensure that existing regulatory authority is not misused to implement or to serve as a future basis for the implementation of the Kyoto Protocol in advance of its consideration and approval by the Senate of the United States." CONG. REC. H6565 (daily ed. July 29, 1998). Conceivably any action designed to improve energy efficiency or promote renewable energy abroad or domestically, or to discuss means of implementing Kyoto (such as the flexibility mechanisms), could arguably be deemed "preparation for implementation of the Kyoto Protocol." A shorter version of the amendment was attached to Fiscal Year 2000 legislation as well. U.S. Department of Agriculture Appropriations Act, H.R. 1906, § 739 ("None of the funds appropriated by this Act shall be used to propose or issue rules, regulations, decrees, or orders for the purpose of implementation, or in preparation for implementation of the Kyoto Protocol .").

[198] Dr. Janet Yellen, Chair, Council of Economic Advisers, Statement before the U.S. Senate Committee on Agriculture, Nutrition, and Forestry (Mar. 5, 1998).

not provide any detailed economic analysis to support these calculations at that time, she did note that this analysis assumed the U.S. would use the flexibility mechanisms in the Kyoto Protocol.[199] In fact, Yellen later testified that the ability to trade among Annex I countries alone would reduce the U.S.' costs of compliance in half:

Estimates derived from the [Second Generation Model] model confirm that emissions trading among Annex I countries can reduce the cost to the United States of achieving its targets for 2008-2012 emissions by about half relative to a situation in which such trading was not available.[200]

Critics were not satisfied with the White House's analysis, so the House Science Committee requested the Energy Information Administration, an independent entity within the Department of Energy, to conduct its own analysis of the cost of greenhouse gas reductions on the U.S. economy.[201] EIA's analysis, released in October, indicated that energy prices could increase significantly – much greater than the Admini-

---

[199] *Id.* The administration's analysis also assumes that the trading system will work with "near-perfect efficiency." Raymond J. Kopp and J.W. Anderson, *Estimating the Costs of Kyoto: How Plausible are the Clinton Administration's Figures?* (Mar. 12, 1998), *available at* http://www.weathervane.rff.org/features/feature034.html. In addition, it also assumes that cheap emissions reductions outside the U.S. will be easily attainable and available. *Id.* On the other hand, the model used (the so-called Second Generation Model) did *not* include the effects of new domestic initiatives such as electricity restructuring and the Climate Change Technology Initiative, which could decrease the costs of compliance. *See* The White House, Meeting the Challenge of Climate Change at a Reasonable Cost Fact Sheet, (July 31, 1998), *available at* http://www.state.gov/www/global/oes/fs_climate_costs_980731.html. Avoided costs of environmental and health damage from climate change were also not included. *Id.* For an illuminating discussion of how a model's assumptions can greatly change the estimated costs of a greenhouse gas reduction policy, *see* Robert Repetto and Duncan Austin, *The Costs of Climate Protection: A Guide for the Perplexed?* (World Resources Institute 1997). Repetto and Austin identified several key assumptions that accounted for more than 80 percent of the differences in economic predictions across sixteen models. These key assumptions included whether emissions trading is allowed, whether the model assumes that non-fossil energy sources will be available at a competitive price, and how quickly technological change is assumed to occur. *Id.* at 5 and 7.

[200] Dr. Janet Yellen, Chair, Council of Economic Advisers, Statement before the U.S. House of Representatives Committee on Government Reform and Oversight, Subcommittee on National Economic Growth, Natural Resources, and Regulatory Affairs (May 19, 1998), *available at* http://www.state.gov/www/policy_remarks /1998/980519_yellen _climate.html.

[201] Energy Information Administration, What Does the Kyoto Protocol Mean to U.S. Energy Markets and the U.S. Economy? A Briefing Paper on the Energy Information Administration's Analysis and Report Prepared for the Committee on Science, U.S. House of Representatives, 3 (Oct 1998) (Pub. No. SR/OIAF/98-03 (S)).

stration's analysis suggested. For example, in order to meet the emissions reductions in its various scenarios, "average delivered energy costs . . . must be between seventeen and eighty-three percent higher than projected in 2010."[202] However, EIA's analysis focused on domestic actions because provisions for international trading, sinks, and the CDM had not been spelled out and it was unclear to what extent other countries would participate in them.[203] EIA's analysis, per the House Committee's request, also used the same assumptions it used in developing its *Annual Energy Outlook*. Thus, EIA's analysis did not consider any proposed changes in federal or state law, policy or standards through the year 2020, and thus did not consider the administration's Climate Change Technology Initiative.[204]

The EIA analysis also included projected impacts on specific industries such as electricity, coal and gasoline, predicting that these industries faced "major adjustments."[205] For example, an additional 10,000 to 43,000 coal miners' jobs could be lost.[206] The average price of gasoline could increase by between eleven and fifty-three percent in 2010.[207] Of course, these predictions generated a firestorm of controversy: how could the Administration have signed up to such a bad deal for the U.S. economy? Critics were quick to point to the EIA analysis as proof that a greenhouse gas control regime would harm the U.S. economy.[208]

---

[202] *Id.* at 2. The analysis also predicted that the price of carbon per metric ton would reach between $67 and $348 by 2010. *Id.* at 4. The administration's analysis predicted a range of $14 to $23 per ton of carbon equivalent in 2008-2012. Yellen Testimony, *supra* note 200.

[203] *See* http://www.eia.doe.gov/oiaf/kyoto/scope.html.

[204] *Id.*

[205] Energy Information Administration, *supra* note 201, at 5.

[206] *Id.* at 7.

[207] *Id.* at 10.

[208] The debate about how much a greenhouse gas control regime will cost, and what is the upper limit on acceptable costs, continues. As noted by Resources for the Future (RFF), a policy think tank that focuses on providing unbiased policy-relevant analysis, estimates range from $25 to $300 per ton of carbon avoided. J.W. Anderson, Richard D. Morgenstern, and Michael A. Toman, *At Buenos Aires and Beyond*, 134 RESOURCES 6-9 (Winter 1999), at 8. One option that has been discussed is to place a ceiling on the cost of compliance. *Id.* That is, a regime would be structured so that if the price of permits reached a certain cost level, the government would step in and sell as many permits as needed at that price. *Id.* This would ensure that the costs of control would not exceed a certain level. *Id.* (This proposal is also known as the "safety valve" proposal.) This would trade certainty of emissions reductions for certainty of costs, but if predictions

But despite these battles over how much implementation of Kyoto would cost, a growing number of U.S. companies agreed that global warming warranted action and announced actions to reduce, avoid or sequester emissions.[209] Earlier in 1998, the Pew Center on Climate Change[210] launched a $5 million campaign to build industry support for taking action on climate change, with over 20 major corporations on its Business Environmental Leadership Council.[211] In fact, numerous companies had begun to identify business opportunities that would arise from an international carbon control regime.[212] Several major industries and the Environmental Defense Fund participated in discussions regarding credit for early action by businesses. This led to the introduction of a bill by Senator John Chafee in October 1998 that would have permitted the president to enter into binding agreements with U.S. businesses that could generate credits usable in any future domestic program that requires mitigation of greenhouse gases before 2008.[213]

In the meantime, the Administration geared up for COP-4, to be held in Buenos Aires, Argentina, in November 1998.

---

about costs being low are correct, then the trigger level would not be met. This proposal is currently being advanced by Americans for Equitable Climate Solutions, headed by former Deputy Assistant Secretary of State for the Environment Rafe Pomerance.

[209] Stuart Eizenstat, Head of Delegation/Under Secretary of State, U.S. Delegation to the UNFCCC Conference of the Parties-4 Press Briefing (Nov. 14, 1998), *available at* http://www.state.gov/www/policy_remarks/1998/981114_eizen_brief.html [hereinafter Eizenstat COP-4 Press Conference]. ("In Kyoto, only a handful of companies would even acknowledge that the threat of climate change is real. A year later, a growing number are becoming full partners in our efforts and pledging real action to reduce emissions.").

[210] The Pew Center on Global Climate Change is a non-profit, non-partisan and independent organization working to provide innovative solutions to addressing global climate change. Established in 1998 by the Pew Charitable Trusts, the Center is led by Eileen Claussen, former U.S. Assistant Secretary of State for Oceans and International Environmental and Scientific Affairs, *available at* http://www.pewclimate.org.

[211] Pew Center on Global Climate Change, Major Corporations Join Effort to Solve Climate Change Problem, (May 7, 1998), *available at* http://www.pewclimate.org /media/pr_major.cfm.

[212] Summary of the Fourth Conference of the Parties to the Framework Convention on Climate Change 2-13 November 1998, EARTH NEGOTIATIONS BULLETIN, Vol. 12 No. 97, Nov. 16, 1998, at 14.

[213] Michael Tebo, *New Senate Bill Introduces Early Credits for Emissions Reductions*, (Oct. 14, 1998) (describing S.2617), *available at* http:// www.weathervane.rff.org /negtable/senate_bill.html.

Meetings of the Convention's subsidiary bodies[214] in Bonn in March indicated that the U.S. would face significant hurdles in gaining acceptance for the flexibility mechanisms in the Kyoto Protocol. For example, the European Union proposed that a cap be placed on a country's ability to use trading to achieve its target, and many developing countries "balked" at pressure to move rapidly on the flexibility mechanisms until they understood them better.[215] However, parties did agree to request a special report from the IPCC to advise them on the use of sinks,[216] and the panel was expected to provide a report in 2000.[217] While this meant that rules on sinks could not be set at COP-4, it did mean that once the report was issued decisions could be made.

1. COP-4: Buenos Aires Plan of Action

The U.S. realized that it was unlikely that parties at COP-4 would make significant progress in making the flexibility mechanisms operational, including the Clean Development Mechanism (CDM). (Credits generated in 2000 from CDM projects may be applied in the first commitment period, so decisions on this mechanism were needed promptly.)[218] Its goal, then, was to preserve what had been agreed to at Kyoto and keep all options on the table.[219] But it also hoped that at least some developing countries would indicate a willingness to limit emissions.[220] The U.S. succeeded at Buenos Aires in achieving these goals.

First, the parties agreed to a two-year plan with deadlines for reaching agreement on key issues in order to make the

---

[214] The two subsidiary bodies are the Subsidiary Body for Implementation (SBI) and the Subsidiary Body for Scientific and Technological Advice (SBSTA).

[215] Michael Tebo, Bonn Negotiations Wrap Up, (June 16, 1998), *available at* http://www.weathervane.rff.org/negtable/bonn_wrapup.html. For an official description of what transpired at the meetings, *See* Documents FCCC/SBSTA/1998/6 and FCCC/SBI/1998/6, *available at* http://www.unfccc.de (reports of the two subsidiary bodies, the SBI and the SBSTA).

[216] REPORT OF THE SUBSIDIARY BODY FOR SCIENTIFIC AND TECHNOLOGICAL ADVICE ON ITS EIGHTH SESSION, BONN, 2-12 JUNE 1998, Doc. No. FCCC/SBSTA/1998/6) (Aug. 20, 19980, at paras. 45(e) and (f), *available at* http://www.unfccc.de.

[217] Michael Tebo, *Bonn Negotiations Wrap Up*, (June 16, 1998), *available at* http://www.weathervane.rff.org/negtable/bonn_wrapup.html.

[218] Kyoto Protocol, *supra* note 142, at art. 12.10.

[219] Kimble Interview, *supra* note 38.

[220] *Id.*

Kyoto Protocol operational, resulting in the "Buenos Aires Plan of Action."[221] In particular, negotiators agreed to decide by the end of 2000 rules and guidelines for Kyoto's market-based mechanisms and laid out a detailed work schedule.[222] Also important to the U.S., a schedule for considering rules and procedures for compliance, including consequences for noncompliance, was also laid out.[223] In a success for the U.S., parties agreed to continue the pilot phase for "Activities Implemented Jointly,"[224] which would give developing countries experience in emissions reduction and sequestration projects prior to the operation of the CDM.[225] The COP "urged" developed country parties to "take all practicable steps to promote, facilitate and finance, as appropriate, the transfer of environmentally sound technologies and know-how to developing country Parties and their access thereto," and support capacity-building in developing country parties.[226] Parties also established a work plan for consideration of adverse impacts of climate change and response measures.[227] The parties also provided further guidance to the Global Environmental Facility[228] with regard to providing funding to developing countries, including calling for it to streamline its procedures, key issues for developing countries.[229] In addition, the parties agreed that the special report on land use, land use change and forestry being prepared by

---

[221] REPORT OF THE CONFERENCE OF THE PARTIES ON ITS FOURTH SESSION, HELD AT BUENOS AIRES FROM 2 TO 14 NOVEMBER 1998, ADDENDUM: PART TWO: ACTION TAKEN BY THE CONFERENCE OF THE PARTIES AT ITS FOURTH SESSION, Decision 1/CP.4 (Doc. No. FCCC/CP/1998/16/Add.1) (Jan. 20, 1999) [hereinafter Buenos Aires Plan of Action (COP-4)].

[222] *Id.* at 22-31 (Decision 7/CP.4).

[223] *Id.* at 37 (Decision 8/CP.4). *See also* Bureau of Oceans and International Environmental and Scientific Affairs, U.S. Department of State, The Buenos Aires Climate Change Conference, (Dec. 1998), *available at* http://www.state.gov /www/global/global_issues/climate/fs-cop4_final_981200.html [hereinafter State Department Fact Sheet on COP-4].

[224] Buenos Aires Plan of Action (COP-4), *supra* note 221, at 20-21 (Decision 6/CP.4).

[225] *See* State Department Fact Sheet on COP-4, *supra* note 223.

[226] Buenos Aires Plan of Action (COP-4), *supra* note 221, at 12 (Decision 4/CP.4, Article 3(a)).

[227] *Id.* at 17-19 (Decision 5/CP.4)

[228] The Global Environment Facility (GEF) serves as the funding mechanism for the UNFCCC, as well as other international agreements. The GEF funds projects in four focal areas: biodiversity, climate change, international waters, and ozone. Projects to address land degradation, as it relates to the four focal areas, are also eligible for funding. *See* http://www.gefweb.org/index.html.

[229] Buenos Aires Plan of Action (COP-4), *supra* note 221, at 5 (Decision 2/CP.4).

the IPCC should inform decisions of the subsidiary bodies on sinks issues.[230] In recognition of the tremendous workload, the U.S. successfully convinced parties to hold an increasing number of high-level consultations.[231]

Most importantly for the U.S. – and what the U.S. hoped would be the first of many announcements[232] - Argentina, the host of COP-4, announced that it would take on a target for emissions reductions for the period 2008-2012.[233] No target was specified, but Argentina said it would announce its target by the next COP.[234] In addition, Kazakhstan announced a similar intention to take on a binding target.[235] Underscoring once again the importance of bringing developing countries on board, Vice President Gore issued a statement saying he was "particularly pleased by the growing engagement of developing countries, marked most notably by Argentina's pledge to take on a binding emissions target," and he "commended" Kazakhstan for its pledge.[236] The head of the U.S. delegation remarked on the "promising new spirit of engagement that is helping to bridge the divide between developed and developing nations." [237] However, this "bridge" was made of tenuous mat-

---

[230] *Id.* at 40-41 (Decision 9/CP.4)

[231] *See* Eizenstat COP-4 Press Conference, *supra* note 209.

[232] *Id.* (predicting that developing country reluctance to take on targets will "dissipate as the model of Argentina spreads").

[233] Address by the President of the Republic of Argentina, contained in the REPORT OF THE CONFERENCE OF THE PARTIES ON ITS FOURTH SESSION, HELD AT BUENOS AIRES FROM 12 TO 14 NOVEMBER 1998, PART ONE: PROCEEDINGS, 35 (Jan. 20, 1999). It is unclear how a developing country emissions target would be incorporated into the Protocol. *See* State Department Fact Sheet on COP-4, *supra* note 223 (noting that the announcements by Argentina and Kazakhstan "present a new challenge to the parties" since the Protocol does not contain provisions for developing countries to voluntarily agree to binding emission targets). Observers speculate that Argentina may have agreed to take on a target because of its status as the host country for the negotiations, its candidacy to join the OECD and the close relationship between Presidents Menem and Clinton. Summary of the Fourth Conference, *supra* note 212, at 13.

[234] Address by the President of the Republic of Argentina, *supra* note 233. Argentina never has announced a target and subsequent economic difficulties make it unlikely it will.

[235] State Department Fact Sheet on COP-4, *supra* note 223. *See also* Michael Tebo, *COP-4 Concludes with a 'Sea Change in Attitude' and a Special 'Plan of Action', available at* http://www.weathervane.rff.org/features/feature054.html ("Kazakhstan expressed its intention to join the group of industrialized countries and accept a legally binding target.").

[236] The White House Office of the Vice President, Statement by Vice President Gore on the Buenos Aires Climate Change Agreement, (Nov. 14, 1998), *available at* http://www.state.gov/www/global/global_issues/climate/981114_gore_climate.html.

[237] Eizenstat COP-4 Press Conference, *supra* note 209. Eizenstat also noted a

ter, perhaps of the same fiber as the fabled Emperor's new clothes: Argentina had to strike an item on voluntary commitments for developing countries off the provisional agenda for the COP because of overwhelming opposition from other developing countries.[238] Nevertheless, both Eizenstat and Maria Julia Alsogaray, the COP President, asserted that several other developing countries had expressed interest in "Argentina's approach."[239]

The day before the conference was slated to end, the United States signed the Kyoto Protocol.[240] This brought the number of countries that had signed the Protocol to 60, with two having ratified it.[241] Republicans attending the meeting in Buenos Aires organized a press conference to protest the U.S. signature. Senator Chuck Hagel said that "[I]n signing the Kyoto Protocol, the President blatantly contradicts the will of the US Senate."[242]

With the Protocol signed, a schedule established, all options still on the table, and a door opened for voluntary commitments for developing countries, the U.S. looked to be in good shape. But the U.S. still faced opposition from domestic constituencies, and the requirement for "meaningful participation of developing countries" hung like a 100-pound weight around U.S. negotiators' necks at the international negotiations. Furthermore, developing countries' demands for access to clean technology and to additional financial resources were growing stronger with every COP.[243]

---

change in developing countries' views on CDM, specifically mentioning that China and several African countries had asked about speeding its implementation. *Id.*

[238] Summary of the Fourth Conference, *supra* note 212, at 13.

[239] *Id.*

[240] U.S. Department of State, Bureau of Oceans, Environmental and International Scientific Affairs, United States Signs the Kyoto Protocol, (Nov. 12, 1998), *available at* http://www.state.gov/www/global/global_issues/climate/fs-us_sign_kyoto_981112.html. Signing the agreement does not bind the United States, but it does indicate to other countries that the U.S. does intend to ratify the Protocol

[241] *Id.*

[242] Summary of the Fourth Conference, *supra* note 212, at 13.

[243] *Id.* at 14. For an excellent synopsis of issues that remained to be resolved, including underlying issues such as equity and a long-term strategy, *see* Andersen et al., *supra* note 208.

G. 1999: COP-5 AND CONTINUED DOMESTIC RESISTANCE

In his State of the Union address, Clinton called global warming "our most fateful new challenge."[244] In February 1999, the Administration released its proposed budget for Fiscal Year 2000 (which would begin October 1999), containing $4.1 billion for climate-related policies and programs.[245] It was a dramatic increase of thirty-four percent from the last year's budget. Highlights included a Clean Air Partnerships Fund, which would provide grants to state, local and private efforts to reduce emissions, continued support for research and development on renewable energy and energy efficiency, continued

---

[244] White House Office of the Press Secretary, Remarks as Prepared for Delivery by President William J. Clinton State of the Union Address, (Jan. 19, 1999), *available at* http://clinton6.nara.gov/1999/01/1999-01-19-state-of-the-union-as-prepared-for-delivery.html. In 1998 and 1999, President Clinton increasingly mentioned climate change in his speeches, and in some cases at great length. *See, e.g.*, White House Office of the Press Secretary, Statement By the President in Xian, China, (Jan. 27, 2000), *available at* http://clinton6.nara.gov/2000/01/2000-01-27-state-of-the-union-address.html (describing Million Solar Roofs Initiative); White House Office of the Press Secretary, Radio Address by the President to the Nation, (July 25, 1998), *available at* http://clinton6.nara.gov/1998/07/1998-07-25-radio-address-on-protecting-our-environment.html (describing new efforts to improve the federal government's efficiency and use of renewable energy); Statement at 150th Anniversary of the Department of the Interior, (Mar. 14, 1999) (asking Interior employees to help the American people "get rid of an old, wrong idea" that reducing greenhouse gas emissions will hurt the economy); White House Office of the Press Secretary, Statement by the President in the Rose Garden, (June 3, 1999), *available at* http://clinton6.nara.gov/1999/06/1999-06-03-statement-by-the-president-on-budget-and-kosovo.html (describing domestic efforts to reduce greenhouse gas emissions); White House Office of the Press Secretary, Remarks by the President at Bio-Energy Climate Change Event (Aug. 12, 1999), *available at* http://clinton6.nara.gov/1999/08/1999-08-12-remarks-by-the-president-at-bio-energy-event.html (discussing how increasing use of bio-energy will help reduce greenhouse gas emissions); White House Office of the Press Secretary, Remarks by the President to the People of New Zealand, Antarctic Center, Christchurch, New Zealand, (Sept. 15, 1999), *available at* http://clinton6.nara.gov/1999/09/1999-09-15-remarks-by-president-to-people-of-new-zealand.html (19 paragraphs on climate change); White House Office of the Press Secretary, Remarks by the President to the 54th Session of the United Nations General Assembly (Sept. 21, 1999), *available at* http://clinton6.nara.gov/1999/09/1999-09-21-remarks-by-the-president-to-un-general-assembly.html (discussing need for both developed and developing countries to take action on climate change); White House Office of the Press Secretary, Remarks by the President to the Luncheon in Honor of the Ministers Attending the Meetings of the World Trade Organization, The Four Seasons Hotel, Seattle, Washington (Dec. 1, 1999), *available at* http://clinton6.nara.gov/1999/12/1999-12-01-remarks-to-wto-ministers-at-luncheon-in-seattle.html (7 paragraphs on climate change).

[245] Catherine E. Howard, *White House Releases FY2000 Climate Change Budget Proposal* (Feb. 5, 1999) *available at* http://www.weathervane.rff.org /features/ feature 058.html.

support for research on the science of climate change, support for research into forestry and sequestration, and continued support for the Climate Change Technology Initiative first announced in October 1997.[246]

Legislation supporting credit for early action gained more backers, with President Clinton pledging his full support to "work with Congress to reward companies that take early, voluntary action to reduce greenhouse gases."[247] Senators Chafee, Mack and Lieberman in March reintroduced the bill they had first introduced in October, modifying it to be a free standing law rather than an amendment to the Clean Air Act and changing the credit period, as well as incorporating "minor" changes requested by environmental and industry groups.[248] In July, Rep. Lazio proposed similar legislation in the House.[249]

Notably on the legislative front, several avowed enemies of the Kyoto Protocol introduced legislation in the spring of 1999 proposing "a different course from that of the Kyoto Protocol" on energy and climate change.[250] Senators Frank Murkowski, Chuck Hagel, Robert C. Byrd, and Larry Craig introduced "The Energy and Climate Policy Act of 1999," which would create a Climate Technology Research, Development and Demonstration Program costing $200 million annually over the next 10 years, with private sector contributions, designed to develop new technologies to avoid or reduce greenhouse gas emissions.[251] It also would establish an Office of Global Climate Change at the Department of Energy, and strengthen the voluntary reporting of greenhouse gas reductions under the exist-

---

[246] *Id.*

[247] Catherine Howard, *Clinton Boosts Senate Bill on Early Emissions Credits in State of the Union Address* (Jan. 29, 1999), *available at* http://www.weathervane.rff.org/trading_ post/S2617_update.html.

[248] Catherine Howard, *Senators Reintroduce Legislation for Early Voluntary Greenhouse Gas Reductions*, (Mar. 16, 1999), *available at* http://www.weathervane.rff.org /trading_post/S547.htm (S. 547 introduced to replace S.2617). While members of the business and environmental community helped craft the bill, support was not unanimous; opponents included the National Environmental Trust, the World Wildlife Fund, the Competitive Enterprise Institute, and the Small Business Survival Committee, among others. *Id.*

[249] Jennifer B. Thatcher, Early Credit Legislation Introduced in the House, (July 16, 1999), available at http://www.weathervane.rff.org/features/feature076.html (discussing introduction of H.R. 2520).

[250] Marina Cazorla, *Senators Introduce The Energy and Climate Policy Act of 1999*, (Apr. 29, 1999), *available at* http://www.weathervane.rff.org/features/feature066.html.

[251] *Id.*

ing Energy Policy Act section 1605 provisions.[252] The bill also rejected the implementation of measures to comply with Kyoto Protocol emissions reduction assignments until developing countries participate in greenhouse gas reductions as called for in the Byrd-Hagel Resolution 98.[253] Several of the bill's provisions – devoting funds to finding better technology and promoting voluntary reductions – echoed policies of the Clinton Administration. Murkowski also stated that he intended to pursue other legislative changes in keeping with Clinton policies, such as to promote exports of clean technology and pursue changes to the tax code to promote activities that sequestered or avoided greenhouse gas emissions.[254] Environmental groups criticized the bill's continued reliance on voluntary measures as opposed to mandatory requirements, as voluntary measures taken to date had not slowed emissions growth in the U.S. While the groups agreed that increased investment in technology was needed for long-term solutions, they also believed that more immediate action was required as well.[255]

The Energy and Climate Policy Act of 1999 marked a turn in the domestic debate, but not a reversal of position by the Kyoto opponents.[256] Rather than reject the concept of global warming outright, by introducing the Act the Senators acknowledged the need to deal with the issue, but charted a slower course, betting on finding technological solutions in the long term and relying on voluntary actions in the short term. The continuing hostility of Congress to the Clinton Administra-

---

[252] *Id.*
[253] *Id.*
[254] *Id.*
[255] *Id.*
[256] Another example of this turn, but not reversal is the introduction by Senator Larry Craig in October of the Climate Change Tax Amendments of 1999 (S.1777) and the Climate Change Energy Policy Act (S.1776). S.1777 would have amended the tax code to provide credits for research and development into reducing greenhouse gas emissions and called for the Secretaries of Energy and Treasury to "jointly study possible additional incentives" voluntary greenhouse gas reduction expenditures. Jennifer B. Thatcher, *Sen. Craig Calls for Coordinated Approach to Climate Change Research*, Policy (Nov. 11, 1999), *available at* http://www.weathervane.rff.org /features/ feature082.html. Craig stated that S.1777 should not be confused with the Chafee credit for early action bill: "Let's not offer false hope that their [(companies')] efforts will be rewarded in some kind of negotiable credits." *Id.* Early action credits would only have value if a domestic or international emissions scheme was enacted; thus, opponents of Kyoto viewed credit for early action bills with suspicion. S. 1776 would have made the Department of Energy responsible for coordinating climate change policy and research. *Id.*

tion's tack was evident at an April 1999 subcommittee hearing on the administration's Climate Change Technology Initiative (CCTI).[257] Congressional representatives claimed that the CCTI violated the Knollenberg Amendment by spending money on programs that implemented the Kyoto Protocol.[258] Administration officials countered that virtually all the CCTI programs were expansions or extensions of existing programs and not in violation of the amendment.[259] Though CCTI did not propose mandatory emissions reductions, many members of Congress apparently viewed almost any action by the administration related to climate as "pre-implementation" of Kyoto. Senator Murkowski's chief of staff dubbed this "the Kyoto effect" – programs that Congress usually supported on a bipartisan basis, such as energy efficiency and renewable energy, would now face opposition from members of Congress worried that the administration was trying to implement the unratified Kyoto Protocol.[260]

1. COP-5: Developing Country Participation

The ambitious work plan set out at COP-4 kept U.S. negotiators busy, with the U.S. making more than 25 submissions to the UNFCCC Executive Secretariat in 1999 prior to Bonn.[261] In May 1999, the EU stated that at least half of its reduction commitment would come from domestic emissions reductions.[262] The U.S. said that the EU was "rewriting prior agreements" if it intended to require that countries obtain a certain percentage of their target from domestic reductions.

---

[257] Jennifer B. Thatcher, *Administration's Climate Budget Request Under Fire* (May 24, 1999), *available at* http://www.weathervane.rff.org/features/feature069.html.

[258] *Id.* Representative Knollenberg urged Congress to "remain vigilant in ensuring that the Kyoto treaty is not rammed through the backdoor." *Id.*

[259] *Id.* Deputy Secretary of Energy T.J. Glauthier, Acting Deputy Director for Management of the Office of Management and Budget Deirdre Lee, and Assistant Administrator for Policy of the Environmental Protection Agency David Gardiner testified for the administration. *Id.*

[260] Sally Clarke, *Republican, Democratic Staffers Say Kyoto is a No Go, But Action on Climate Needed* (May 25, 2000), *available at* http://www.weathervane.rff.org /features/feature098.html.

[261] These submissions are listed at http://www.state.gov/www/global/global _issues/climate/climate_1999_submiss.html and include submissions of the U.S. as part of the Umbrella Group.

[262] Marina Cazorla, *After Negotiations, EU Agrees on Common Climate Policy* (May 20, 1999), *available at* http://www.weathervane.rff.org/features/feature068.html.

The U.S. also questioned the EU's motives since the EU countries had additional flexibility that other countries did not – they could trade within the EU bubble.[263] Clearly the U.S. would need to continue to press for the freedom to use the flexibility mechanisms at COP-5.[264]

COP-5 took place October 25 – November 5, 1999, in Bonn, Germany. The U.S. negotiating position going into COP-5 had not changed much from COP-4: keep all options on the table, keep working hard to resolve issues related to the flexibility mechanisms, and keep pushing for developing country participation.[265] While COP-5 continued the forward momentum to COP-6, so many issues remained unresolved that the negotiators agreed to double their efforts in the time period leading up to COP-6.[266]

---

[263] *Id.* (Comments of Under Secretary of State for Global Affairs Frank Loy). The EU bubble refers to the collective commitment by the member countries of the EU to a reduction target, which puts the countries to under one "bubble." The EU had other motives as well:

> The Clinton administration also used figures implying that the United States could buy from other countries as much as 85 percent of the emissions reductions it needed to meet its Kyoto obligations, which would lessen the impact of the Kyoto cuts on U.S. businesses and consumers. These purchases could include a large quantity of low-cost surplus emissions permits that might be supplied by Russia. Other countries, especially several European nations, have denounced the U.S. strategy on several grounds. These include fears of lost competitiveness vis-à-vis the United States, doubts about the long-term U.S. commitment to reducing greenhouse gases at home, concerns about the integrity of Russian emissions permits, and beliefs that international equity requires domestic sacrifice by all developed countries.

Andersen et al., *supra* note 208.

[264] Interestingly, at the time that the EU made this announcement, it admitted that it was not on course to meet its Kyoto target. Emissions were projected to rise by 6 percent from 1990 levels in 2010, while the EU had committed to an 8 percent reduction. Marina Cazorla, *After Negotiations, EU Agrees on Common Climate Policy* (May 20, 1999), *available at* http://www.weathervane.rff.org/features/feature068.html.

[265] *See, e.g.*, Press Statement by James P. Rubin, Spokesman for the Department of State, Climate Change Conference, (Oct. 26, 1999) *available at* http://secretary.state.gov/www/briefings/statements/1999/ps991026b.html. Sometime in this time period (1998-1999), the administration likely decided to delay pushing for certain decisions until after the 2000 election. If Gore won, then presumably the administration could be more aggressive. Former Acting Assistant Secretary of State for Oceans and International Environmental and Scientific Affairs Melinda Kimble confirmed this impression. Kimble Interview, *supra* note 38. For this reason, the U.S. also pushed for COP-6 to be held in early 2001, rather than in late 2000, but it could not convince other countries to go along. *See* Loy COP-5 Closing Statement, *infra* note 267.

[266] REPORT OF THE CONFERENCE OF THE PARTIES ON ITS FIFTH SESSION, HELD AT BONN FROM 25 OCTOBER TO 5 NOVEMBER 1999, ADDENDUM: PART TWO: ACTION TAKEN BY THE CONFERENCE OF THE PARTIES AT ITS FIFTH SESSION (Doc. No. FCCC/CP/1999/6/Add.1) (Decision 1/CP.5) (calling on the subsidiary bodies to "intensify

Under Secretary of State for Global Affairs Frank Loy sounded positive notes in his closing statement at COP-5:

> We have made significant progress across the full spectrum of substantive issues, from emissions trading to sinks to compliance. . . Here, we began the hard substantive job of actually assembling the very nuts and bolts. We leave Bonn with a mandate to negotiate text that will refine these elements and weave them into an environmentally strong and economically sound agreement. This is absolutely critical. Without these buildings blocks, we can not get from Kyoto to a fully operational, ratifiable Kyoto treaty.[267]

The Parties agreed to work on a single negotiation text on the mechanisms that focused on the "principles, modalities, rules and guidelines" for operation of the mechanisms, with a view to completing work by COP-6.[268] Again, this served a key objective of the U.S. in bringing the operation of the market mechanisms closer to reality.[269] The Parties also endorsed a work program on sinks designed to resolve key sinks issues by COP-6, including definitions of forestry activities under Article 3.3 as well as additional sinks categories under Article 3.4.[270]

While no other developing countries took up the gauntlet thrown down by Argentina and Kazakhstan at COP-4, Argentina and Kazakhstan both pressed forward with their commitments. Argentina announced a voluntary binding emissions target for 2008-2012, following up on its statement of intention at COP-4.[271] Kazakhstan formally requested inclusion in An-

---

their work program" and for the parties to support this effort) [hereinafter COP-5 Action Report].

[267] Under Secretary of State for Global Affairs Frank Loy, Closing Statement at Fifth Session of the Conference of the Parties to the UN Framework Convention on Climate Change, (Nov. 4, 1999) *available at* http://www.state.gov/www/policy_remarks/1999/991104_loy_climate.html (hereinafter [Loy COP-5 Closing Statement].

[268] COP-5 Action Report, *supra* note 266, at Decision 14/CP.5.

[269] *See, e.g.,* Loy COP-5 Closing Statement, *supra* note 267. ("While progress was made on all the substantive issues before this Conference, the United States is particularly gratified by the growing recognition that the issue of cost-effectiveness must be squarely addressed.").

[270] COP-5 Action Report, *supra* note 266, at Decision 16/CP.5. *See also* U.S. Department of State Bureau of Oceans and International Environmental and Scientific Affairs, The Bonn Climate Change Conference: Fact Sheet, (Nov. 1999) (summarizing the accomplishments at COP-5 in a more readable form than the Secretariat documents).

[271] The target picked by Argentina was a two to ten percent reduction below a "business-as-usual" scenario in the 2008-2012 period. *See* Summary of the Fifth Conference

nex I of the UNFCCC,[272] though action on this request was deferred until COP-6.[273] The U.S. called for a "new dialogue" to explore the "full range of market-oriented strategies that can create sustainable development opportunities for developing countries that voluntarily reduce their emissions."[274]

In a development troubling to the Clinton administration, the NGO community's campaign to ratify Kyoto by 2002 gained increasing recognition at COP-5.[275] Setting a deadline for ratification was impolitic for the U.S., since Senate advice and consent is required for ratification. The 2002 date was also premature until the U.S. could be sure that it would have an agreement that could be ratified, which it did not yet.

H. 2000: FINAL PUSH FOR AN AGREEMENT TO ELABORATE RULES FOR KYOTO

In his State of the Union address, President Clinton devoted three paragraphs to topic of global warming, calling it "the greatest environmental challenge of the new century."[276] He also stressed that cutting greenhouse gas emissions would not slow economic growth; instead, "new technologies make it possible to cut harmful emissions *and* provide even more growth."[277] The administration's budget for Fiscal Year 2001 proposed devoting $2.4 billion in funding to combat global climate change, a forty-three percent increase over enacted levels for Fiscal Year 2000.[278] In addition to the CCTI, the Clean Air Partnership Fund, and other continuing programs, the budget included a new International Clean Energy Initiative, which

---

of the Parties to the Framework Convention on Climate Change October 25 – November 5, 1999, EARTH NEGOTIATIONS BULLETIN, Vol. 12, No. 123, Nov. 8, 1999, at 13. Loy noted that Argentina's action showed that a developing country "can fashion a target that benefits the environment while contributing to its sustainable development." Loy COP-5 Closing Statement, *supra* note 267.

[272] The result of which would put it in the same category as developed countries.

[273] COP-5 Action Report, *supra* note 266, at § II, para. 4.

[274] Loy COP-5 Closing Statement, *supra* note 267.

[275] *See* Summary of the Fifth Conference of the Parties, *supra* note 271, at 15.

[276] White House Office of the Press Secretary, President William J. Clinton State of the Union Address, (Jan. 27, 2000), *available at* http://clinton6.nara.gov/2000/01/2000-01-27-state-of-the-union-address.html.

[277] *Id.* (emphasis in the original). CCTI was designed to spur development and adoption of these technologies.

[278] UNITED STATES: DOMESTIC PROGRESS ON CLIMATE CHANGE, at 4 (Nov. 2000) (part of press packet handed out at COP-6).

would devote $201 million to help accelerate the deployment of clean energy technologies around the world.[279]

But the Administration's perennial push for increased funding for climate change actions faced the usual opposition on the Hill. The House Subcommittee on National Economic Growth, Natural Resources and Regulatory Affairs requested that the Energy Information Administration (EIA) analyze how much CCTI would reduce greenhouse gas emissions, and EIA released its report in May 2000 concluding that the tax incentives would have only a relatively small effect.[280] Republicans pushed for alternative bills, the Energy and Climate Policy Act of 1999 (S. 882),[281] and the Climate Change Energy Policy Response Act of 1999 (S.1776).[282] The Administration opposed centralizing authority for climate change in the Department of Energy since it needed the expertise of many agencies in addressing climate change, and said that the bills duplicated existing programs and did not provide a complete strategy.[283]

But as these Republican bills suggested, the opposition on the Hill was mainly to the Kyoto Protocol rather than questioning the science of climate change or the need to take some action on climate change. Senator Murkowski's chief of staff pointed to flaws he saw in the Protocol – too short term, drafted without the input of the Senate, imposing economic pain without environmental gain, and failure to include all countries, but he also said that these flaws do "not absolve us from trying to resolve the underlying problem."[284]

---

[279] *Id.* at 5.

[280] Jennifer B. Thatcher, *EIA Analysis Reveals CCTI Will Have Small Impact on Emissions* (May 11, 2000), *available at* http://www.weathervane.rff.org /features/feature096.html. EIA concluded that the tax incentives would reduce carbon emissions by 1.3 million metric tons in 2010—only 0.07 percent below baseline projections for that year as estimated in the *Annual Energy Outlook 2000. Id.* It said that the short duration of the incentives was a factor in keeping the impact small. EIA also said that it was difficult to quantify the emissions impact of the $1.4 billion proposed for research and development (R&D). *Id. See* Energy Information Administration, Analysis of the Climate Change Technology Initiative (CCTI): Fiscal Year 2001, (May 2000), *available at* http://www.eia.doe.gov/oiaf/climate.

[281] *See* description supra.

[282] *See* description supra.

[283] Jennifer Lee, *Senate Committee Hears Testimony on Climate Change Bills* (April 4, 2000), *available at* http://www.weathervane.rff.org/features/feature092.html. By centralizing all climate change programs in one agency, it would also be easier to track spending, cut spending and oversee administration action on climate.

[284] Sally Clarke, *Republican, Democratic Staffers Say Kyoto is a No Go, But Action on Climate is Needed* (May 25, 2000), *available at* http://www.weathervane.rff.org

A major U.S. scientific report underscored the need to take action on climate change, finding that climate change could cause serious harm to the United States. In June, the U.S. Global Change Research Program released the first national assessment of the possible effects of global warming on various regions in the United States.[285] The study found that if global temperatures continued to rise at current levels, the United States "may experience substantial consequences in coming decades, including higher crop production, increased erosion of coasts, extreme dry and wet conditions, and disproportionately hotter urban areas."[286] Hundreds of leading scientists participated in the effort, which included 20 regional workshops, and the draft report was peer-reviewed by independent scientists.[287] The document received widespread attention in the press[288] and underscored the need to reduce greenhouse gas emissions to avert the harmful impacts to the U.S. outlined in the report.[289] In another relatively positive announcement, draft figures from the Environmental Protection Agency showed a modest one-half percent growth in U.S. greenhouse gas emission in 1999.[290] This growth was significantly lower than the average growth rate of 1.3 percent in 1990 through 1998. How-

---

/features/feature098.html.

[285] Sally Clarke, *First National Assessment Projects Major Climate Change Effects Across the U.S.* (June 13, 2000). The assessment was called for by a 1990 federal law and was written by the National Assessment Synthesis Team (NAST), a committee of experts drawn from governments, universities, industry, and non-governmental organizations. NATIONAL ASSESSMENT SYNTHESIS TEAM, U.S. GLOBAL CHANGE RESEARCH PROGRAM, CLIMATE CHANGE IMPACTS ON THE UNITED STATES: THE POTENTIAL CONSEQUENCES OF CLIMATE VARIABILITY AND CHANGE: OVERVIEW REPORT (December 2000), *available at* http://www.gcrio.org/NationalAssessment/ or http://sedac.ciesin.columbia.edu/NationalAssessment . NAST also produced a longer "Foundation Report."

[286] Clarke, *supra* note 285.

[287] *Id.*

[288] *See, e.g.*, Curt Suplee, *Drastic Climate Changes Forecast; Global Warming Likely to Cause Droughts, Coastal Erosion in U.S., Report Says,* WASH. POST, June 12, 2000, at A3; H. Josef Hebert, *Rising Temps Forecast Changes*, ASSOCIATED PRESS, June 6, 200); *Forecast for 2100: Hotter*, USA TODAY, June 13, 2000, at 4A.

[289] For example, the report said that sugar maples could disappear from New England, and some coastal cities, faced with sea level rise and more frequent storm surges, may have to redesign and adapt water, sewer and transportation systems. Hebert, *supra* note 288. The risk of drought in the Midwest is substantial. Suplee, *supra* note 288.

[290] Jennifer B. Thatcher, *11.5% Increase in US GHG Emissions Since 1990, EPA Says* (Mar. 8, 2000), *available at* http://www.weathervane.rff.org/ features/feature089. html.

However, EPA attributed this drop to a relatively mild winter, and U.S. total emissions were still increasing - now 11.5 percent above emissions in 1990.

As usual, the European Union announced the positions it would espouse at the next Conference of Parties, COP-6, well before the meetings. In June, the EU ministers agreed to take a hard line position on sinks: additional sinks and sources under Articles 3.3 and 3.4 should not be included until after the first commitment period and sinks projects should not be allowed to qualify for the Clean Development Mechanism.[291] The EU stated that there should be "strict consequences for non-compliance" with the Kyoto Protocol, including loss of eligibility to use the flexibility mechanisms and tough financial penalties.[292] It also reaffirmed its commitment to create "the conditions for ratification and entry into force of the Kyoto Protocol by 2002 at the latest."[293]

The U.S. approach on sinks and compliance was markedly different from the EU's, especially with respect to sinks. In August, the U.S. submitted its views to the UNFCCC Secretariat concerning the role sinks should play in the Kyoto Protocol.[294] It advocated a comprehensive approach based on sound science that would provide strong incentives for sound management of carbon stocks.[295] In particular, the U.S. supported inclusion of broad land management categories together with comprehensive greenhouse gas accounting.[296] The U.S. indicated it was willing to consider a "phase-in" for the first commitment period so that only a portion of sinks would be credited during this period "to address the concerns of some countries about the effect of comprehensive greenhouse gas account-

---

[291] Jennifer B. Thatcher, *EU Adopts Strong Stance on Sinks and Compliance* (June 27, 2000), *available at* http://www.weathervane.rff.org/negtable/EUstancefor COP6.html.

[292] *Id.*

[293] *Id.*

[294] United States Submission to UNFCCC on Land-Use, Land-Use Change, and Forestry, (Aug. 1, 2000), *available at* http://www.state.gov/www/global/global_issues/climate/000801_unfccc1_subm.pdf.

[295] *See* Bureau of Oceans and International Environmental and Scientific Affairs, U.S. Department of State, U.S. Views on Land Use, Land-Use Change and Forests, Framework Convention on Climate Change: Fact Sheet, (Aug. 1, 2000), *available at* http://www.state.gov/www/global/global_issues/climate/fs-000801_unfccc1_subm.html.

[296] *Id.*

ing on the first budget period targets."[297] In other words, unlike the EU, the U.S. supported inclusion of broad categories of sinks activities, but it recognized that this approach could result in large sinks credits in the first budget period and so was willing to consider accepting partial credit for sinks in the first period. Presumably in subsequent budget periods, parties would factor in sinks credits into their targets, so such a phase-in would not be necessary after the first period. The submission did not address sinks in the CDM. The U.S. also supported a strong compliance regime, but rather than paying financial penalties, parties in violation should be required to "make up" the tons they had missed, with additional penalty tons. This would "make the atmosphere whole, and thereby help improve the environment."[298]

At the meetings of the subsidiary bodies in Lyon in September, sinks, supplementarity,[299] and the CDM dominated discussions.[300] The Subsidiary Body for Scientific and Technological Advice adopted a text laying out options on sinks for the parties to decide upon at COP-6, but there was little agreement among the groups to narrow the options down.[301] The EU continued to insist that parties achieve most of their emissions reductions domestically, and the EU and the U.S. differed on whether CDM projects should be limited to a "positive" list (EU) or whether developing countries, which would host such projects, should be free to select CDM projects appropriate to their circumstances (U.S.).[302] With only two months remaining until COP-6, the Lyon meetings left many crucial issues to be resolved, so the UNFCCC planned numerous informal consultations.[303]

A week after the Lyon meetings, the Senate Foreign Relations and Energy and Natural Resources Committees held a

---

[297] *Id.*

[298] Assistant Secretary of State for Oceans and International Environmental and Scientific Affairs David B. Sandalow, Statement at Thirteenth Sessions of the Subsidiary Bodies, Framework Convention on Climate Change, (Sept. 14, 2000), *available at* http://www.state.gov/www/policy_remarks/2000/000914_sandalow _lyon.html.

[299] The term "supplementarity" refers to the issue of how much of their emissions commitments did Annex I parties need to achieve at home.

[300] Jennifer Lee, *The 13th Sessions of the Subsidiary Bodies Conclude Talks in Lyon* (Sept. 22, 2000), *available at* http://www.weathervane.rff.org/negtable/LyonSB13.html).

[301] *Id.*

[302] *Id.*

[303] *Id.*

joint hearing to discuss the U.S. position at the upcoming COP-6 negotiations. Under Secretary of State for Global Affairs Frank Loy testified for the administration, stating that three fundamental issues needed to be addressed at the upcoming negotiations: environmental effectiveness, economic cost, and developing country participation.[304]

> • *Environmental effectiveness.* The U.S. would continue to "[take] the lead in developing comprehensive, effective, and binding rules to estimate, report and review emissions, and to track trading."[305] The U.S. would also continue to support legally binding consequences for exceeding targets.[306]
>
> • *Economic cost.* To promote cost-effective action, the U.S. would seek to ensure that "the Kyoto [flexibility] mechanisms and the Protocol's sinks provisions can be implemented as simply as possible, while preserving the environmental integrity of the Protocol."[307] The U.S. would resist efforts to put a cap on the ability of a Party to use the mechanisms.[308] On sinks, as noted above, the U.S. would support a comprehensive, broad-based accounting system and broad inclusion of sinks activities, with a phase-in for the first budget period.[309] Senator Murkowski questioned whether cost-effective action under Kyoto was possible, citing the 1998 EIA study finding that Americans could face gas prices fifty-three percent higher if Kyoto went into effect.[310] Loy noted that the EIA study did not factor in emissions trading or sinks, which would reduce the costs.[311]
>
> • *Developing country participation.* Loy noted that key developing countries needed to join the fight against climate change, but he did not indicate in his statement what the

---

[304] Statement of Under Secretary of State for Global Affairs Frank E. Loy before the U.S. Senate Committee on Foreign Relations and the Committee on Energy and Natural Resources, (Sept. 28, 2000), *available at* http://www.state.gov/www/policy_ remarks/2000/000928_loy_unfccc.html [hereinafter Loy Pre-COP-6 Senate Statement].

[305] *Id.*

[306] *Id.*

[307] *Id.*

[308] *Id.*

[309] *Id.*

[310] Jennifer Lee, *Senate Committees Hold Joint Hearing on Status of Kyoto Negotiations* (Sept. 29, 2000), *available at* http://www.weathervane.rff.org/negtable/ JointHearing.html [hereinafter Pre-COP-6 Senate Hearing Article].

[311] *Id.*

U.S. strategy at COP-6 would be. Instead, he noted the progress the U.S. had made in engaging developing countries:

- Argentina had announced a national emissions target, and "Kazakhstan and Bolivia have announced a willingness to do the same."[312]

- In March, the U.S. and India signed a joint statement on cooperation on energy and environment issues.[313] In this statement, India "outlined" two goals: that ten percent of its new electric power would come from renewable energy sources by 2012, and that it will improve energy efficiency in power production by 15% by 2007-2008.[314]

- In May, the U.S. and China signed a joint statement on environmental cooperation, committing to further ongoing cooperation to address global environmental challenges, including climate change.[315] Loy noted that China had opposed international dialogue regarding developing countries taking action on climate change, so this represented a "new openness to engagement."[316]

- Loy also reported that developing countries now evidenced "genuine and enthusiastic support" for the CDM.[317]

---

[312] Loy Pre-COP-6 Senate Statement, *supra* note 304.

[313] White House Office of the Press Secretary, Joint U.S.-India Statement, (Mar. 21, 2000), *available at* http://clinton6.nara.gov/2000/03/2000-03-21-joint-us-and-india-statement.html.

[314] White House Office of the Press Secretary, Fact Sheet on President Clinton's India Trip: Protecting the Environment, Promoting Clean Energy Development and Combating Global Warming, (Mar. 22, 2000), *available at* http://clinton6.nara.gov/2000/03/2000-03-22-fact-sheet-on-protecting-the-environment-and-clean-energy.html. The U.S. would help in this effort in part by providing $45 million through the U.S. Agency for International Development to promote energy efficiency use and production in India, and $50 million to promote clean energy throughout South Asia. *Id.*

[315] White House Office of the Vice President, Joint Statement on Cooperation [sic] Environment & Development Between the United States and China, (May 19, 2000), *available at* http://clinton6.nara.gov/2000/05/2000-05-19-statement-on-cooperation-between-united-states-and-china.html.

[316] Loy Pre-COP6 Senate Statement, *supra* note 304.

[317] *Id.* Energy efficiency and clean energy projects under the CDM will help developing countries reduce their emissions growth.

Loy concluded that the U.S. anticipated "that many of these highly complex issues [would] come to a head at The Hague [COP-6]."[318] This was an understatement: as the Lyon meetings had shown, the EU and U.S. differed sharply on a number of issues, and the G-77/China countries had their own agenda to pursue regarding financial resources and technology transfer, and would likely suspect U.S. overtures would be linked to taking on an emissions reduction commitment.

And, in a development expected by none, no clear victor emerged from the U.S. Presidential election.[319] U.S. negotiators left for The Hague unsure whether the next President would be a Democratic or a Republican. While U.S. negotiators believed that environmental integrity, cost effective action and developing country participation were principles both parties would support, clearly they would be disadvantaged in negotiations with other countries when countries would wonder if the as-yet unknown U.S. President would support any deal struck at The Hague.

1. COP-6: EU-US Disagreement over Sinks Scuttles Deal

The purpose of COP-6 was to work out rules to implement the vague language of the Kyoto Protocol so that countries would be able to ratify it.[320] Thus, expectations for the meeting were high. However, ministers arrived the second week of COP-6 for the high-level negotiations portion of the COP with a full plate of issues remaining.[321] In hopes of moving the negotiations along, Dutch Environment Minister Jan Pronk, the chair of COP-6 created four "contact" groups[322] to deal with the

---

[318] *Id.*

[319] Ron Fournier, *Bush, Gore Locked in Close Contest,* ASSOCIATED PRESS NEWSWIRE, Nov. 8, 2000 (describing how Gore called to concede to Bush on election night when the networks called Florida for Bush but then retracted his concession when it was not clear who had won Florida); Peter Slevin, *Bush's Florida Lead Shrinks to 300 Justification Required on Recounts In Media Spotlight, Recount Staggers On,* WASH. POST, Nov. 15, 2000, at A1 (vote recount in Florida still leaves race undecided). Gore finally conceded on December 13, 2000, after an unfavorable ruling from the Supreme Court regarding the recount of votes in Florida. Ron Fournier, *Gore Concedes, Bush Calls for Unity*, ASSOCIATED PRESS NEWSWIRE, Dec. 13, 2000.

[320] *See, e.g.*, John W. Anderson, *Opening Moves in the Hague* (Nov. 14, 2000), *available at* http://www.weathervane.rff.org/features/feature109.html.

[321] *See* EARTH NEGOTIATIONS BULLETIN, Vol. 12, No. 163, Nov. 27, 2000, at 1.

[322] Contact groups are smaller groups than the plenary sessions, which include all countries.

following issues: developing country issues;[323] mechanisms;[324] sinks issues;[325] and compliance and accounting.[326] This allowed delegates to consider crosscutting issues within the groups, and thus could then hopefully facilitate negotiations. However, by Thursday, Nov. 23, negotiations appeared stalled.

With the media reporting a severe lack of progress at the negotiations, activist groups became increasingly concerned that the parties would be unable to reach agreement.[327] From the start of the meeting, environmental groups and the press had consistently criticized the U.S. for purportedly advocating the use of "loopholes."[328] The EU did not move much from its opening positions on sinks,[329] while the U.S. showed flexibility on a number of issues in hopes of reaching an agreement, including sinks, CDM, the participation of developing countries,[330] and a new fund for developing countries.[331] Neverthe-

---

[323] Capacity building, technology transfer and funding.

[324] Emissions trading, the clean development mechanisms and joint implementation.

[325] Land-use, land-use changes and forestry.

[326] EARTH NEGOTIATIONS BULLETIN, *supra* note 321.

[327] *See, e.g., UN Climate Conference Quotes: Pain, Gain, and Turkeys*, AGENCE FR. PRESSE ENGLISH WIRE, Nov. 23, 2000 (quoting Greenpeace saying that the next 48 hours would determine the fate of the Kyoto Protocol, and it could be saved if the U.S. and Japan would show leadership rather than "leading the race to cheat their way out of action").

[328] Every day in their briefings, spokespersons for the NGOs reportedly criticized the behavior of the U.S. C. Gerald Fraser, *Activists: Coming of Age*, EARTH TIMES, Nov. 24, 2000, at 6. World Wildlife Fund (WWF) campaigner Jennifer Morgan criticized the U.S. position on sinks "at practically every news briefing WWF was involved in." *Id.* The U.S. Public Interest Group accused the U.S. of trying to "take credit for doing nothing." Id. *See also, e.g.,* Alex Kirby, *Protests Fail to Derail Climate Talks*, BBC NEWS ONLINE, Nov. 22, 2000, *available at* http://news.bbc.co.uk/hi/english/sci/tech/newsid_1036000/1036211.stm (the U.S. is "seen here by many other delegations, and by most environmental campaigners, as so wedded to the protection of its own narrow short-term interests that the chasm surrounding it is now almost unbridgeable"). The European press in particular challenged the U.S. position. *See, e.g,* Press Briefing by Assistant Secretary of State for Oceans and International Environmental and Scientific Affairs (OES) David Sandelow et al., (Nov. 13, 2000), *available at* http://www.state.gov/www/global/global _issues/climate /cop6/cop6_11-13-00pb.html (Reuters reporter asks whether "the U.S. trying to dodge its political burden by trying not to take any domestic measures and do you think there should be a cap on the flexible mechanisms?").

[329] *See, e.g.*, Robin Pomeroy, *U.S. Says Chirac Pollution Attack Unhelpful*, REUTERS ONLINE, Nov. 20, 2000 (EU remains opposed to the U.S. sinks position).

[330] *See* Press Briefing by Under Secretary of Secretary of State for Global Affairs and Head of the U.S. Delegation Frank E. Loy et al., (Nov. 21, 2000), *available at* http://www.state.gov/www/global/global_issues/climate/cop6/cop6_11-21-00pb.html (stating that "the United States has shown considerable flexibility in a number of the positions we have taken" during COP-6: the U.S. was not going to seek targets from developing countries, was proposing a phase-in period for sinks, was adopting a differ-

less, protesters appeared to blame mainly the U.S. for the apparent lack of progress. Tensions at the conference finally boiled over on Wednesday of the second week. Protesters threw a pie in the face of the chief U.S. negotiator Frank Loy[332] and a group of 40 protesters "stormed" into a meeting room and used noisemakers to disrupt the session; ten of the protesters sat down in the room, locked arms and refused to leave.[333]

Late Thursday evening, with one official day left in the conference, Pronk issued a paper (the "Pronk paper")[334] that he called a "balanced package"[335] outlining his proposals on key issues in an attempt to reach consensus.[336] Rather than focus-

---

ent definition for forests under Article 3.3 in order to avoid incentives for deforestation, was considering a preference for small projects in the CDM, and was willing to discuss whether nuclear projects should be allowed in the CDM.) On sinks, the U.S. modified its proposal so that fewer sink tons would count in the first budget period. As described by Loy, the U.S. proposal would allow countries to "fully count as a first interval not more than 20 million metric tons of annual carbon sequestration in managed forests. In addition, currently projected sequestration beyond that level would be discounted by two-thirds." Press Briefing by Under Secretary of State for Global Affairs and Head of the U.S. Delegation Frank E. Loy et. al., (Nov. 20, 2000), *available at* http://www.state.gov/www/global/global_issues/climate/cop6/cop6_11-20-00pb.html.

[331] *US Sees New Climate Fund for Poor as Deadline Looms at UN Talks*, AGENCE FR. PRESSE ENGLISH WIRE, Nov. 23, 2000 (U.S., Japan and Canada propose new $1 billion fund to help developing countries combat climate change).

[332] Loy, the consummate diplomat and good sport, later issued a statement saying that, "On the eve of Thanksgiving, pumpkin pie would have been a more traditional choice, but what I really want is a strong agreement to fight global warming." Kirby, *supra* note 328.

[333] John A. Dillon and Jennifer Morrow, *Protests Disrupt Conference; Delegates Struggle to Complete Negotiations in Uncertain Mood – Pie Hurled at Loy; Negotiations Slow*, EARTH TIMES, Nov. 23, 2000, at 12. The protesters said the "delegates were catering to corporate lobbyists rather than pushing for drastic cuts in greenhouse gases" the protesters thought were needed. *Id.* There were also numerous peaceful protests, demonstrations and expressions of opinion, including the construction of a "dike" around the conference center, World Wildlife Fund members dressed in polar bears, the construction of ice sculptures, and the usual "Fossil of the Day" awards by the CAN. *See, e.g.*, "Demonstrators build sand barrier at UN conference," *Agence France Presse English Wire*, (Nov. 18, 2000); Richard Ingham, *Guerrillas in Our Midst: Green Protest Permeates Climate Talks*, AGENCE FR. PRESSE ENGLISH WIRE, Nov. 22, 2000 (describing the "street theatre" of the protesters at the talks).

[334] REPORT OF THE CONFERENCE OF THE PARTIES ON THE FIRST PART OF ITS SIXTH SESSION, HELD AT THE HAGUE FROM 13 TO 25 NOVEMBER 2000 ADDENDUM PART TWO: ACTION TAKEN BY THE CONFERENCE OF THE PARTIES AT THE FIRST PART OF ITS SIXTH SESSION (Doc. No. FCCC/CP/2000/5/Add.2) (Apr. 4, 2001) [hereinafter COP-6 REPORT], (Annex to Decision 1/CP.6 titled "Note by the President of the Conference of the Parties at its sixth session, dated 23 November 2000").

[335] Malini Goel and Rabya Nizam, *Pronk's Plan – Negotiators Unable to Complete Work but Officials Warn that Climate Conference May not be Extended: Analysis: Clock Ticks for Hague Agreement*, EARTH TIMES, Nov. 24, 2000.

[336] EARTH NEGOTIATIONS BULLETIN, *supra* note 321, at 1.

ing on the work of the four contact groups, all attention then turned to the Pronk paper. It quickly became clear that the paper's suggested compromises would not be accepted by the parties in the time remaining.[337]

In hopes of salvaging some result from the process, the European Union and the Umbrella Group then met separately to try to reach agreement on three key issues: supplementarity, sinks and compliance.[338] In the early hours of Saturday morning, several members of the EU, including Minister Voynet, and members of the Umbrella Group shook hands on an agreement. But when this group went to present the agreement to the whole EU, it was rejected, reportedly because some of the EU members not present at the negotiations with the Umbrella Group could not accept the number of sinks tons allowed.[339] Later that afternoon a subdued and disconsolate Pronk declared that the parties were unable to reach agreement.[340] The parties adopted a decision to suspend COP-6: it

---

[337] *Id.* at 18 (reviewing Pronk's paper and offering its views on how parties would object to his suggested solutions). Environmental groups thought the Pronk paper reflected mainly the U.S. positions and thus was completely unacceptable. Climate Action Network, *EU: Salvage Your Dignity!* ECO, Vol. 105, No. 12, Nov. 24, 2000, *available at* http://www.climatenetwork.org/eco/eco12_1100.html. In CAN's view, Pronk's paper contained "a huge free gift" to the U.S. on sinks, no restrictions on emissions trading and thus could promote the trading of "hot air" from Russia, weak compliance measures and inadequate controls on the types of projects in the CDM. *See* Climate Action Network, *No to A License To Emit – Yes to Action*, ECO, Vol. 105, No. 12, Nov. 24, 2000, *available at* http://www.state.gov/www/global/global_issues/climate/cop6/001124_loy_cop6.html. However, the U.S. said it was "deeply disappointed" with the Pronk paper and considered it "unacceptably imbalanced." Statement of Under Secretary for Global Affairs and Head of U.S. Delegation Frank E. Loy, Nov. 24, 2000, *available at* http://www.state.gov/www/global/global_issues/climate/cop6/001124_loy_cop6.html.

[338] These were considered "developed country" issues (i.e., not the CDM or financial resources or technology transfer), but the EU and the Umbrella Group were criticized for excluding developing countries from the discussion, since developing countries had a stake in the outcome. As reported in the Earth Negotiations Bulletin:

> Much of the media's coverage on the collapse of the talks has focused on the apparent inability of the EU and US to reach a compromise on sinks and supplementarity. However, to imagine that agreement on these issues alone would have saved the talks in the last hour is to make the arrogant – and mistaken – assumption that this would have proved acceptable to the G-77/China. Not only does the Group have its own strong position on these issues, but there were also a number of unresolved differences on concerns of particular importance to the Group: funding and adverse effects, technology transfer and adaptation under the UNFCCC.

Earth Negotiations Bulletin, *supra* note 321, at 18.

[339] *Id.*

[340] REPORT OF THE CONFERENCE OF THE PARTIES ON THE FIRST PART OF ITS SIXTH

stated that the COP decides to suspend its 6th session and it further requested Pronk to "seek advice on the desirability of resuming that session in May/June 2001."[341] Pronk's paper, the texts from the COP-6, and the texts from the Lyon sessions were all forwarded to the resumed session.[342]

Despite acrimonious public statements pinpointing the blame on each other for the failure at the Hague,[343] the EU and some members of the Umbrella Group met in early December in Ottawa to try to resuscitate the "almost" agreement of Saturday morning.[344] They were not successful.[345]

Why weren't parties able to strike a deal at COP-6? The EU certainly wanted an agreement in order to stay on track with its goal of ratification of the Kyoto Protocol by 2002, and the U.S. negotiators likely wanted to end the Clinton administration on a successful note. One of the chief negotiators for the U.S. remarked that "some countries have viewed this agreement as more narrowly focusing on reducing emissions from the industrial sector and other countries have tended to view this as an agreement focused on fighting global warming."

SESSION, HELD AT THE HAGUE FROM 13 TO 25 NOVEMBER 2000 PART ONE: PROCEEDINGS (Doc. No. FCCC/CP/2000/5/Add.1) (April 4, 2001,) at § XI.B.2 (para. 113). *See also* EARTH NEGOTIATIONS BULLETIN, *supra* note 321, at 18. (At the Informal High-Level Plenary Saturday afternoon, Pronk expressed "his disappointment" that no agreement had been reached and that the "expectations of the 'outside world' had not been met").

[341] COP-6 REPORT, *supra* note 334, at Decision 1/CP.6.

[342] *Id. See also* Doc. No. FCCC/CP/2000/5/Add.3 (texts from COP-6) and Doc. No. FCCC/CP/2000/INF.3 (texts from Lyon).

[343] *See, e.g.*, Under Secretary of State for Global Affairs Frank E. Loy, Statement to the Sixth Session of the Conference of the Parties to the UN Framework Convention on Climate Change (COP 6); The Hague, Netherlands, (Nov. 25, 2000), *available at* http://www.state.gov/www/policy_remarks/2000/001125_loy_cop6.html) (while not naming the EU, it is clear that Loy is referring to the EU when he says that too many of the parties held fast to "positions shaped more by political purity, than practicality; more by dogmatism, than pragmatism"), Jeremy Lennard, *Bitter Recriminations Fly After UN Climate Talks Flop*, AGENCE FR. PRESSE ENGLISH WIRE, Nov. 26, 2000 (French Environment Minister Voynet says U.S. demanded too many concessions; London Observer criticized the US for "apparently believ[ing] it should come under no scrutiny for running its own industry with inefficient, environmentally damaging technologies long abandoned by Europe"); *UN Climate Conference President Says EU Also to Blame for Failure*, AGENCE FR. PRESSE ENGLISH WIRE, Nov. 26, 2000 (Pronk says EU began too late to negotiate). There was also finger pointing within the EU.

[344] Howard Williams, *Top Environment Bureaucrats Meet in Secret, Hope to Kick-Start Climate Talks*, AGENCE FR. PRESSE ENGLISH WIRE, Dec. 6, 2000.

[345] Xinhua Asia Worldsources, Inc., *No Ministerial Climate Talks for Now*, ASSOCIATED PRESS NEWSWIRE, Dec. 8, 2000 (quoting EU official saying that "some progress was made at the meeting, but a lot still remained to be done").

In other words, the EU's positions on sinks, supplementarity and the CDM were aimed at forcing countries to achieve most of their reductions domestically, while the U.S. wanted to make use of every tool it could, including sinks and emissions reductions abroad.[346] With such radically different views, could agreement have been achieved? And when one throws the financial and technology transfer demands of the G-77/China countries into the mix,[347] the prospects for agreement seem even more ephemeral.

III. CONCLUSION

In the end, the gap between domestic and international viewpoints was too wide for the Clinton administration to bridge. Powerful domestic constituencies were concerned about the economic cost of reducing emissions and the lack of developing country participation, while foreign negotiators were more concerned with tamping down the U.S. economy (and concomitant large greenhouse gas emissions) and providing financial resources to developing countries. Also, Clinton's compromised position (adopted to help secure broader support) cost him the support of many U.S. environmental groups. The Clinton administration was unable to "make good" on its ambitious commitment at Kyoto to reduce emissions. Nevertheless, the scientific evidence of the negative impacts of global warming continues to mount, [348] and the rest of the world is moving forward on implementing the Kyoto Protocol.[349] As the largest

---

[346] *See also* Loy Statement, *supra* note 243 (stating the U.S.'s deep disappointment that no agreement was reached and appearing to put much of the blame for the failure on the EU).

[347] At COP-6 the United States and other members of the Umbrella Group did propose a new fund of $1 billion over 5 years to help developing countries, but "there was no closure on the details." John W. Anderson, Why the Climate Change Conference Failed: An Analysis (Dec. 4, 2000), *available at* http://www.weathervane.rff.org /negtable/COP6/analysis_anderson.htm.

[348] Odile Meuvret, *Global Warming Crisis Worse Than Thought: UN Report*, AGENCE FR. PRESSE ENGLISH WIRE, Nov. 2, 2000 (draft Third Assessment Report by the IPCC warns that global warming will be worse than thought).

[349] *See, e.g.*, Eric Pianin, *Warming Pact a Win for European Leaders; Negotiators Rally Global Community but Say Impact May Be Modest Without U.S. Role*, WASH. POST, Nov. 11, 2001, at A2 (COP-7 in Marrakesh results in an agreement paving the way for ratification of the Kyoto Protocol, but the U.S. is not a party to this agreement as President Bush in March said he would not submit the Protocol to the Senate for ratification).

greenhouse gas emitter, the U.S. needs to be a part of the global solution. But what mix of policies will play on both the domestic and international fronts? Ay, there's the rub.

ARTICLE

U.S. CLIMATE CHANGE POLICY UNDER G. W. BUSH

ARMIN ROSENCRANZ*

I. INTRODUCTION

During the first three months of 2001, there were two startling developments in climate change policy. In January, the Intergovernmental Panel on Climatic Change (IPCC) reported unequivocally that the world's climate is warming and that anthropogenic sources — mostly burning coal, oil and gas to produce electricity — are at least partially responsible[1]. In March, his second month as U.S. President, George W. Bush both reversed his earlier position on regulating domestic emissions of CO_2 and repudiated the Kyoto Protocol of 1997. The Kyoto Protocol was fashioned at the third Conference of Parties (COP) to the 1992 Framework Convention on Climate Change (FCCC), held in Kyoto, Japan in December 1997. Its purpose was to implement the goals of the FCCC and had been a signal accomplishment of the Clinton-Gore administration. President Clinton signed it in 1998.[2]

There is no way to reconcile these two developments. The IPCC 2001 report offered the considered assessment of the

---

* AB, Princeton; JD, PhD, Stanford; Consulting Professor, Stanford University; Adjunct Professor of Law, Golden Gate University; Co-editor (with Stephen Schneider and John-O. Niles) of *Climate Change Policy: A Survey* (Island Press, 2002).

[1] IPCC Third Assessment Report (TAR) Synthesis Report (Apr. 2001) *at* http://www.ipcc.ch/.

[2] Shardul Agrawala and Steinar Andresen, *U.S. Climate Policy: Evolution and Future Prospects*, ENERGY AND ENV'T, Summer 2001, at 126.

overwhelming majority of the world's climate scientists, and President George W. Bush's reversal and repudiation seemed a head-in-the-sand response driven by ignorance, short-sightedness and the interests of certain elements of the American business community.

In this short article, I review the development of U.S. climate change and energy policy under President George W. Bush, describe various executive branch initiatives to address the issue of global climate change, and assess the prospects for progressive U.S. action to address climate change over the remainder of the Bush Presidency. This is a short article because the repudiation of Kyoto speaks for itself and the domestic initiatives that could arguably influence greenhouse gas abatement seem extraordinarily modest in scope and cost.

II. COP-6 AT THE HAGUE

Between COP-4 in Buenos Aires in November 1998 and COP-6 in The Hague in November 2000, significant domestic opposition to emission cuts developed in corporate circles and in Congress. Since it became clear that an emissions trading system would take many years to be realized, the only alternative to lifestyle-changing cuts in carbon emissions was for U.S. negotiators at COP-6 to seek credits for carbon sinks in U.S. agriculture and forestry practices.[3] The European Union (E.U.) insisted that at least half of industrialized countries' reduction

---

[3] *Id.* at 123. David Sandalow, Assistant Secretary of State for Oceans, Environment and Science, and Head of the U.S. delegation at COP-6 in The Hague, said in his opening statement to the Sixth Session of the Conference of the Parties to the U.N. Framework Convention on Climate Change, The Hague, The Netherlands, November 13, 2000:

> The United States will work with all Parties to craft sound decisions that include:
> - *Strong, market-based rules for the flexible mechanisms*;
> - Binding legal consequences for failure to meet targets;
> - *Rules that recognize the role of forest and farmlands in fighting climate change*;
> - A prompt start to the Clean Development Mechanism, with rules to ensure its workable operation and environmental integrity;
> - Help to provide the technology and capacity [that] developing countries need to combat climatic change and adapt to its impacts.

[Emphasis added] (speech on file with the author). *See also* D.B Sandalow and I.A. Bowles, *Climate Change: Fundamentals of Treaty-making on Climate Change*, SCI., June 8, 2001, at 1839-40.

targets be achieved through domestic cuts in fossil fuel emissions.[4] It seemed at one point in the negotiations that the gap between the E.U and U.S. positions could be bridged. But the E.U. delegates, perhaps under pressure from their Green Party members and environmental Non-Governmental Organizations (NGOs), eventually refused to bridge this gap and COP-6 ended without agreement. Since George W. Bush was declared president-elect in the three weeks following the end of COP-6, it seemed to many observers that the gap between the E.U. and the U.S. would likely widen in the future.[5]

III. THE GEORGE W. BUSH FIRST HUNDRED DAYS

The historical moment seemed ripe for Republican presidential leadership, in the tradition of President Nixon going to China: Vice President Gore, who championed the "global warming" issue in his 1992 bestseller, *Earth in the Balance*, and who had been the lightning rod for congressional opposition to carbon abatement since 1993, was off the public stage, and Republicans seemed poised to co-opt this issue and divide his supporters. Several industry leaders, including CEOs of oil companies, had announced that global climate change was here to stay and needed to be taken seriously. Several large corporations, reluctant to appear regressive on the issue of climate change, had left the Global Climate Coalition — the industry lobby that had been so vocal in opposition to an international climate agreement for most of the 1990s. The IPCC had just predicted a global temperature rise as high as 6°C in the 21st Century unless greenhouse gas emissions are reduced. Seizing the moment to announce progressive, market-based carbon dioxide policies would seem to have been the safest political course, with the possibility of reducing the usual swing to the opposition party in the 2002 midterms elections, and helping to secure President Bush's reelection in 2004.

---

[4] *See Hotting Up in The Hague*, THE ECONOMIST, Nov. 18, 2000, at 83.

[5] Argwala, *supra* note 2, at124. Beyond these EU/US divisions, Agrawala and Andresen argue that American "national culture" influences the shape of climate change policy: "There is unlikely to be domestic support for measures that seemingly enhance government control over citizen behavior. This sentiment has played a major role in the U.S. insistence on flexible, market based approaches, as opposed to more top-down measures...supported by most European countries." *Id.* at 133.

Notwithstanding this apparent opportunity, President Bush wrote on March 13, 2001 to four Republican Senators that he was not willing to regulate CO_2 emissions in light of the ongoing California energy shortage and "the incomplete state of scientific knowledge of the causes of, and solutions to, global warming change, and the lack of commercially available technologies for removing and storing carbon dioxide."[6]

Sixteen days later, the second shoe dropped when President Bush repudiated the Kyoto Protocol by stating he would not accept a plan that will harm our economy and hurt American workers.[7]

IV. REACTION TO PRESIDENT BUSH'S MARCH, 2001 PRONOUNCEMENTS

Most environmental NGOs deplored President Bush's March 2001 pronouncements on global climate change. One typical response came from the Union of Concerned Scientists (UCS):

> The president cited two reasons for his decision, both of which are ill founded, and without merit.
>
> The first is that he does not believe the evidence of global warming is clear. Nothing could be further from the truth. A panel of the world's leading scientists recently released the most comprehensive study ever on global warming, and found that it is well underway, will have devastating impacts if emissions go unchecked, and can be limited at little or no net economic cost.
>
> The second is that including caps on carbon dioxide emissions will significantly increase electricity costs for the nation's consumers. His claim is based on a fatally flawed study commissioned by former Representative David McIntosh, a hard-line opponent of action on global warming. Other recent analyses by the Department of Energy, Environmental Protection Agency and private groups demonstrate that major

---

[6] Letter from President George W. Bush to Senators Hagel, Helms, Craig and Roberts (Mar. 13, 2001), *available at* http://www.whitehouse.gov /news/rleases/2001/03 /20010314.html.

[7] President George W. Bush, Press briefing at The White House (Mar. 29, 2001). *See also Rage Over Global Warming*, THE ECONOMIST, Apr. 7, 2001, at 18.

> reductions in power plants' pollutants including carbon dioxide can be achieved at modest cost.[8]

The UCS e-mail to its supporters goes on to explore "solutions to deflate soaring electricity prices," including presidential support of clean energy sources and energy efficiency measures to reduce demand. UCS noted that wind energy is the fastest growing energy supply in the world.[9] It is hard to comprehend President Bush's political strategy in these March 2001 reversals. Whereas conservatives and the business community make up perhaps 20 percent of the electorate,[10] polls indicate that a large majority of Americans of both major parties consistently favor protecting the environment and conserving open spaces.[11] Conservatives and business people may be more deeply committed to their beliefs than environmentally-minded people are to theirs, but the political calculations of the Bush team still seem to risk a backlash from voters in 2002 and 2004.

To defuse the negative public reaction to his reputation of Kyoto, as well as his apparent reneging on a campaign pledge to regulate CO_2 emissions, President Bush on May 11, 2001, called for guidance on climate change policy from America's most highly regarded scientific body, the politically neutral National Academy of Sciences (NAS).[12] The NAS organized an expert panel that, within four weeks, concluded, "[g]reenhouse gases are accumulating in Earth's atmosphere as a result of human activities . . . Human-induced warming and associated sea level rises are expected to continue throughout the 21st Century."[13] The NAS expert committee went on to endorse the IPCC January 2001 report's main conclusions, and praised IPCC Working GrouP's "admirable summary of research activi-

---

[8] E-mail from Lloyd Ritter, Union of Concerned Scientists, to the Union of Concerned Scientists mailing list (Mar. 20, 2001) (on file with author).

[9] *Id.*

[10] To be sure, this twenty percent of the electorate may represent eighty percent or more of the country's wealth.

[11] Jean Cumming & John Harwood, *Arsenic Issue May Poison Bush's 'Compassionate Conservatism'*, WALL ST. J., Apr. 20, 2001, at 16. In an April 2001 CBS poll, 61 percent of respondents said that protecting the environment was more important to them than producing energy. *Id.* Only 29 percent chose energy over the environment. *Id.*

[12] *Burning Bush*, THE ECONOMIST, Jun. 16, 2001, at 77.

[13] *Id.*

ties in climate science."[14] If President Bush expected the NAS group to be skeptical of climate change and to hamletize about scientific uncertainty, he must have been disappointed.

Besides calling for help from the NAS, President Bush announced his intentions to set up a U.S. Climate Change Research Initiative to study areas of scientific uncertainty and develop priority areas for investment.[15] He also announced his support for a National Climate Change Technology Initiative centered in universities and national laboratories.[16] These initiatives got President Bush little credit, especially since they appear likely to be modestly funded — as have all U.S. climate change initiatives in the last ten years.

V. KYOTO REDUX

Stanford Senior Fellow David Victor has argued that the Kyoto targets were arbitrary and hopelessly unrealistic."[17] *The Economist* believes that Bush's formal repudiation of Kyoto contains some good news and some bad news.[18] The bad news is that (a) President Bush has retrogressed by alleging continued uncertainties about the science of climate change, in the face of an overwhelming consensus among climate scientists that global warming and its damaging effects are real and are caused by human activity; and (b) President Bush's team has argued that developing countries are not required to cut carbon emissions and thus get a free ride while developed countries like the U.S. suffer economic loss.[19] But developing countries' per capita carbon emissions are now a small fraction of per capita emissions in the U.S. and other developed countries; the developed countries' emissions account for the bulk of the greenhouse effect, so it is fair that they act first; and all climate negotiations envision a carbon emission role for developing countries at a later stage.[20]

The good news, according to *The Economist*, is that the Bush people are focusing on the costs of complying with Kyoto

---

[14] *Id.*
[15] President George W. Bush, Press Briefing at the White House (Jun. 11, 2001).
[16] *Id.*
[17] VICTOR, THE COLLAPSE OF THE KYOTO PROTOCOL, 27-29 (2001).
[18] *See Oh no, Kyoto,* THE ECONOMIST, Apr. 7, 2001, at 73-75.
[19] *Id.* at 74.
[20] *Id.*

targets. An international climate change treaty could be implemented in a flexible way that gives broad play to market forces and encourages innovation and development of clean technologies. Europeans seem to be unreasonably skeptical of market approaches, and the Bush repudiation may get them to rethink their position. The *Economist* cited with approval Victor's argument that the cause of the Kyoto Protocol's collapse is its "cap and trade system," which allows ambitious targets but puts no limits on compliance costs.[21]

VI. THE DOMESTIC POLICIES: BUSH-CHENEY ENERGY PLAN

Both President Bush and Vice President Cheney are former Texas oil men. That seems about as good an explanation as any for the regressiveness of their "energy security" plan. According to the National Energy Policy, the federal government can reduce fossil fuel use, improve energy efficiency, develop renewable energy supplies, reduce gasoline consumption in the U.S. transportation sector – half of the U.S. oil supply from all sources is consumed by vehicles – and switch from coal or oil to natural gas without building a diversified energy System.[22]

The Bush-Cheney energy plan only addresses the last of these five strategies. It focuses on expanding the supply of natural gas. There may have been an unsavory connection between Vice President Cheney and Enron, which had been the world's largest natural gas supplier until it filed for bankruptcy in October 2001.[23] Enron was a top contributor to the Bush-Cheney campaign in 2000. The plan would open one to two mostly gas-fired power plants each week for several years, and make the U.S. far more dependent on natural gas than it ever was on oil.[24]

It seems fairly clear that Bush and Cheney are serving their own business community. The suggestion that more drilling within the U.S. will reduce America's dependence on for-

---

[21] *Id.* at 75.

[22] OFFICE OF THE PRESIDENT, REPORT OF THE NATIONAL ENERGY POLICY DEVELOPMENT GROUP, (May 2001), *available at* http://www.whitehouse.gov/energy/.

[23] Tom Hamburger, *Six Meetings Cited Between Enron Corporation and Officials of the Bush Energy Task Force*, WALL ST. J., Jan. 9, 2002, at A4.

[24] Antonia V. Herzog et al., *Renewable Energy: A Viable Choice*, ENV'T, Dec. 2001, at 12.

eign oil is bogus. Saudi Arabia has enormous resources of oil that can be extracted at a lower cost than oil anywhere else in the world. This oil will, inevitably, flow onto the world market and set the world price, regardless of U.S. policies.[25]

The Bush-Cheney energy plan would open federal lands, including Alaska's Arctic National Wildlife Refuge, to oil and gas exploration. It would promote the construction of oil refineries, power plants and oil and gas pipelines. It calls for subsidies for coal and nuclear power and for rolling back environmental standards.[26] It is hard to see how any of this promotes energy security or serves the national interest.

VII. OTHER U.S. DOMESTIC ACTIONS AND PROPOSALS WITH CLIMATE CHANGE IMPLICATIONS

On January 9, 2002, the Bush administration announced that it was abandoning the Clinton administration's Partnership for a New Generation of Vehicles, on which the government has spent an annual average of $200 million over the past seven years. This program sought to create an 80-mile-per-gallon American car. Energy Secretary Spencer Abraham said that U.S. car manufacturers could not build such a vehicle at an affordable cost[27] – despite the presence in the U.S. market of Honda and Toyota hybrid (gasoline and electric-powered) cars with mileage per gallon approaching the 80 m.p.g. target. Abraham announced a new program called Freedom Cooperative Automatic Research ("Freedom Car") whose aim is to develop sport utility vehicles powered by hydrogen fuel cells.[28] The Bush administration seems to have no interest in tougher Corporate Average Fuel Economy (CAFÉ) standards, much less in reducing overall motor vehicle use. It seems to prefer to cut sweetheart deals with the U.S. auto industry – continuing the Clinton Policy in that respect, but with a supposedly more realistic goal that, in Secretary Abraham's words, doesn't sacrifice "freedom of mobility and freedom of choice."[29]

---

[25] *See Addicted to Oil*, THE ECONOMIST, Dec. 15, 2001, at 9.

[26] *See* Katherine Q. Seelye, *Regulators Urge Easing of Rules for Clean Air*, N. Y. TIMES, Jan. 8, 2002, at A1.

[27] *Bush Shifts Gears on Car-Research Priority*, WALL ST. J., Jan. 9, 2002, at C14.

[28] *Id.*

[29] *Id.*

If the U.S. is to seriously embrace hydrogen fuel cells, the challenges of hydrogen storage and distribution will have to be met. The low energy density of gaseous hydrogen makes it difficult to store in a vehicle. If hydrogen is to be used to power vehicles, it must be stored either as a compressed gas or as a liquid at extremely cold temperatures (-253°C). These extreme temperature and pressure conditions mean that hydrogen will require a new distributional infrastructure. Also, the costs of storing cold liquefied hydrogen are currently prohibitively high.[30]

Four senators last year proposed a modest bill that would mandate that the fuel economy of light trucks match car fuel economy by 2007.[31] Democrats Dianne Feinstein of California, Jack Reed of Rhode Island, and Charles Schumer of New York, and republicans Olympia Snowe and Susan Collins of Maine sponsored this bill. The proposed increase in fuel economy would supposedly save an estimated million barrels of oil per day and prevent 240 million tons of carbon dioxide from entering the atmosphere.[32] This bill seems to have been eclipsed by the war on terrorism and has gone nowhere.

Senators Joseph Lieberman (D-CT.) and John McCain (R-AZ.) also announced last August their intention to introduce domestic cap-and-rule legislation, which "will . . . enable us to negotiate an acceptable international agreement . . . when the U.S. does come back to the table."[33] Lieberman chairs the Senate Governmental Affairs Committee, which voted out a bill on August 1, 2001, to create a new White House Office on Climate Change, responsible for developing, coordinating and implementing a national strategy on global climate change.[34]

At about the same time, *The Washington Post* reported that executives of several large utilities believe that carbon

---

[30] Seth Dunn, *Hydrogen Futures, Toward a Sustainable Energy System*, WORLDWATCH PAPER 157, Aug. 2001, at 36-37.

[31] Senators Feinstein and Snowe, release to the press, May 1, 2001, *available at* http://feinstein.senate.gov/releases01/cafe_standards.html.

[32] *Id.*

[33] Senators Leiberman and McCain, press statement, Aug. 3, 2001, *available at* http://www.senate.gov/~lieberman/press/01/08/2001803920.html.

[34] Senator Leiberman, press statement, Aug. 1, 2001, *available at* http://www. senate.gov/~gov_affairs/080101_press.htm.

dioxide regulation is inevitable. They want and need to be guided by clear national regulatory policy on CO_2 emissions.[35]

In the wake of COP-7's endorsement of Kyoto's targets, the *Economist* reported on two initiatives by business lobbies. The GHG Protocol, developed by the World Resources Institute and the World Business Council on Sustainable Development — whose members include Ford and Dupont — establishes an international standard under which businesses report their GHG emissions.[36] The Emissions Market Development Group announced its intention to create a new "commodity for international trading of greenhouse-gas reductions."[37]

The Pew Center on Global Change has also organized a "Business Environmental Leadership Council," whose members include IBM, Boeing, BP, Hewlett/Packard, Dupont and Intel. This Council argues that U.S. businesses should take concrete steps now to reduce carbon emissions.[38]

VIII. THE FEBRUARY, 2002 BUSH CLIMATE CHANGE STRATEGY

On February 14, 2002, President Bush announced his long awaited strategy to address climate change. His target is to cut the rate of annual domestic carbon emissions through voluntary corporate action from 183 metric tons per million dollars of GDP to 151 metric tones by 2012.[39] His aim is to slow the *growth* of emissions rather than reducing them – thereby avoiding harm to the U.S. economy. He talked of cutting greenhouse gas "intensity" by eighteen percent over the next decade. The eighteen percent cut is not a cut in emissions but rather a cut in the level of emissions per unit of economic output.[40] Growth in economic output between 2002 and 2012 make it likely that U.S. carbon emissions would be significantly *higher* in 2012 than they are today.

---

[35] Eric Pianin, *Bush Urged to Negotiate Global Warming* Treaty, WASH. POST, Aug. 2, 2001, at A14.

[36] *Gasometry*, THE ECONOMIST, Nov. 17, 2001, at 69.

[37] *Id.*

[38] Business Environmental Leadership Council, mission statement <http://www.pewclimate.org/belc/index.cfm >. *See also* Geoff Winestock, *Effort to Cut Greenhouse Gases Percolates on Back Burner*, WALL ST. J., Feb. 1, 2002, at A14.

[39] John J. Fialka, *Bush to Unveil Plan Linking Economy and Environment*, WALL ST. J., Feb. 14, 2002, at A22.

[40] *Blowing Smoke*, THE ECONOMIST, Feb. 16, 2002, at 27.

The Bush climate change strategy included a proposed $4.6 billion in tax credits over five years, averaging $900 million per year, to stimulate investments in clean energy sources, hybrid and fuel cell vehicles and emissions reducing technologies.[41] Notwithstanding much talk by Bush administration officials and the Council of Economic Advisers about market based initiatives, there is nothing in the new strategy about carbon emissions trading – one of the flexibility mechanisms of the Kyoto Protocol contributed by the U.S. delegation to COP-3 in 1997.

The President said his 2003 budget commits $4.5 billion to climatic change, "more than any other nation's commitment in the entire world."[42] This includes $588 million toward energy conservation research and development (R + D), $408 toward renewable energy R + D, and $150 million for the new Department of Energy "Freedom Car Initiative." [43]

President Bush observed that, under the Kyoto Protocol, the U.S. would have had to "make deep and immediate cuts in our economy to meet an arbitrary target." It would have cost our economy up to $400 billion and we would have lost 4.9 million jobs."[44] He also noted that "developing countries such as China and India already account for a majority of the world's greenhouse gas emissions,"[45] but failed to acknowledge that China and India *together* contain 2.3 billion people and produce fewer carbon emissions than the U.S. with 280 million people.

President Bush's budget allocations to address climate change are on the same order and roughly the same tiny percentage of GDP that President Clinton allocated. Like the Bush-Cheney energy policy, there is scant emphasis in the new climate change strategy on energy conservation, renewable energy or fuel efficiency standards. An editorial in the New York Times concluded that President Bush does not regard global warming as a problem: "[t]here seems no other way to interpret a policy that would actually increase the gases responsible for

---

[41] President George W. Bush, Address at The National Oceanic and Atmospheric Administration, (Feb. 14, 2002), *available at* www.whitehouse.gov/news/releases/2002/02/20020214-5.html.

[42] *Id.*

[43] *Id.*

[44] *Id.*

[45] *Id.*

heating the earth's atmosphere . . . By his own figures, actual emissions . . . could rise by 14 percent, which is exactly the rate at which they have been rising for the last 10 years."[46]

Senator James Jeffords (Ind., VT), chair of the Senate Environment and Public Works Committee, described the Bush climate change strategy as "divorced from the reality of global warming".[47] Environmentalists must now appeal to Congress, where they seek legislation to require corporations to publicly disclose their carbon emissions — in contrast to the voluntary disclosure advocated by President Bush.

IX. PROGNOSIS

The declaration that the Kyoto Protocol is dead seems premature, in light of its adoption by 178 nations in Bonn in July 2001 and reaffirmed at COP-7 in Marrakech in November 2001. Benefiting from the international shock over President Bush's withdrawal from the Kyoto negotiating process, the E.U. went along with massive compromises in November 2001 (COP-7) that they wouldn't consider in November 2000, at COP-6. In the wake of Bush's repudiation, the E.U. was willing to accept a partial deal rather than a continued stalemate. Thus, U.S. policy has had a major, though obviously unintended, influence over the entire climate change negotiation.

Prior to September 11, 2001, pressure was building on all sides — Congress, industry and environmental groups — to take action on climate change and to develop an international alternative to Kyoto. Now, notwithstanding the war on terrorism, the rest of the world has moved forward with concerted international action on climate change without U.S. involvement. Americas' allies may reasonably expect a less unilateral[48] and more cooperative role in climate change in view of their support of U.S. anti-terrorism measures.

President Bush may have calculated that responding to international pressure on the climate change issue will lose rather than gain him domestic support. The major challenge

---

[46] *Backward on Global Warming*, N. Y. TIMES, Feb. 16, 2002, at A18.

[47] *Bush Plan Deepens Divide Over Kyoto Protocol*, NATURE, Feb 21, 2002, at 821.

[48] Climate change isn't the only case of unilateralism in U.S. foreign policy. In the last year, the Bush administration also revoked President Clinton's endorsement of the International Criminal Court and cast aside the nuclear test ban treaty.

ahead seems to be for Congress and the business community to persuade the Bush administration to act much more forcefully to reduce carbon dioxide domestically and to collaborate in shaping carbon reduction policies, strategies, and mechanisms with fellow member states of the FCCC, all sharing the same carbon-loaded atmosphere, and most allied with the United States in its war on terrorism. This, together with flexible market-based mechanisms developed in tandem with Bush policy advisors, and with growing pressure from Democrats, scientists, and environmentalists, could bring the U.S. back into the process.

ARTICLE

RATIFICATION RESISTED: UNDERSTANDING AMERICA'S RESPONSE TO THE CONVENTION ON BIOLOGICAL DIVERSITY, 1989-2002

ROBERT F. BLOMQUIST*

> [T]here is more information of a higher order of sophistication and complexity stored in a few square yards of forest than there is in all the libraries of mankind. Obviously, that is a different order of information. It is the information of the universe we live in. It is the information that has been flowing for millions of years. In this total information context [humans] may not be necessarily the highest or the most interesting product.[1]

It is a well-known assumption among international legal observers that the American government has refused to embrace the 1992 Convention on Biological Diversity (the "Convention" or the "CBD"), through initial executive refusal to sign the CBD by President George H. W. Bush in 1992, and ongoing refusal by the American Senate to ratify the Convention after President William J. Clinton signed the treaty in 1993.[2]

---

* Professor of Law, Valparaiso University School of Law; B.S. 1973, University of Pennsylvania (Wharton School); J.D. 1977, Cornell Law School. My thanks go to the following people for helpful comments and insights on an earlier draft: Paul S. Kibel and William Thomas.

[1] GARY SNYDER, TURTLE ISLAND 108 (1974).

[2] *See generally,* DAVID HUNTER, JAMES SALZMAN & DURWOOD ZAELKE, INTERNATIONAL ENVIRONMENTAL LAW AND POLICY 957-58 (1998) [hereinafter

Therefore, according to this presupposition, America constitutes "[t]he major hold-out" among the nations of the world in validating and supporting the goals of the Convention.[3] Yet, this is the same American national government that nearly three decades ago led the world in biodiversity protection by passing and implementing the Endangered Species Act of 1973.[4] And this is the same nation containing state and local governments that have engaged in innovative biodiversity policymaking during the last several years.[5] How can this be? What accounts for this apparent legal and policy inconsistency? While it is tempting to explain such anomalous behavior in base political terms (that the United States Senate has been in conservative, supposedly "environmentally-unfriendly" Republican hands for most of the last decade compared to control by the liberal, supposedly "environment-friendly" Democrats dur-

---

INTERNATIONAL ENVIRONMENTAL LAW AND POLICY] (discussing chronology of events from 1992 through the end of the decade regarding the reticence of the United States to become a party to the CBD); Chris Wold, *The Futility, Utility and Future of the Biodiversity Convention,* 9 COLO. J. INT'L ENVTL. L. & POL'Y 1(1998).

[3] INTERNATIONAL ENVIRONMENTAL LAW AND POLICY, *supra* note 2, at 957. The treatise authors observe:

> Even though the United States had registered no complaints with the text as reported out of the May 1992 [preparatory draft] meeting, EPA Administrator Reilly announced on arrival at [the United Nations Conference on the Environment and Development] that the United States would not sign the agreement. Initially Reilly identified on-going disagreement over the financial mechanism as the reason for U.S. opposition, but later the United States also objected to the Convention's treatment of intellectual property rights, the requirements to share benefits and technology gained from biological resources, and even the Convention's limited requirements for domestic conservation.
>
> The failure to sign the Convention proved to be a public relations nightmare for the United States and then-President George Bush. To make matters worse, a memorandum written by Administrator Reilly was leaked to the press by someone close to the President in what was viewed as a deliberate move to undermine the EPA Administrator's negotiating position in Rio. The Reilly memorandum recommended that the United States agree to sign the Convention in return for some modest changes that could be negotiated at UNCED. The President publicly rejected the EPA recommendations, and from that point forward the United States was essentially isolated at the Rio Conference. The United States would be the only industrialized country not to sign the Biodiversity Convention at Rio. President Clinton signed the Convention soon after entering office, but the [US] Senate has refused to give its advice and consent to ratification, in spite of the support of most pharmaceutical and biotechnology companies as well as environmental organizations.

Id.

[4] *See infra* notes 31-32 and accompanying text.

[5] *See infra* note 162 and accompanying text. *See also, 23 States Represented at National Biodiversity Symposium,* 18 ENVTL. F. 62 (Mar./April 2001) (discussing state and local biodiversity conservation efforts).

ing the 1970's "Decade of the Environment")[6], such a line of reasoning would grossly oversimplify and fail to reflect the nuances of the American response to the CBD since its creation at Rio.

This Article undertakes a broad, synoptic evaluation of America's complex response to the Convention. It paints an intricate picture of American legal and policy initiatives, on multiple levels, for enhanced domestic and international protection of biodiversity juxtaposed with concomitant legal and policy footdragging. Part I limns, in bold lines, the basic structure of the matter: initially it provides a brief overview of the genesis and contents of the CBD; then, it sketches a chronological synopsis of America's formal and informal response to the CBD.[7] Part II adds some detailed brushwork: it attempts to deepen understanding of the various tensions, concerns, interests and legal-policy dimensions of America's multi-faceted response to the Convention.[8] This discussion will demonstrate that there has not been a monolithic negative American reaction to the CBD but, rather, a variety of American responses that includes several positive aspects. Part III devotes a corner of the epistemological canvas to open up a frame on the future: it discusses such topics as the importance of American leadership and engagement in formal international environmental diplomacy and lawmaking; the wildcard implications of the September 11, 2001 terrorist attacks on America's willingness and need to exercise leadership in implementing the CBD. Finally, it offers some pragmatic suggestions for reconfiguring America's response to the Convention.[9]

I. INTRODUCTION

A. OVERVIEW OF THE CBD

As I explained in detail in an earlier article[10], the immediate intellectual and symbolic antecedent to the 1992 CBD was

---

[6] *See generally,* MICHAEL BARONE & GRANT UJIFUSA, THE ALMANAC OF AMERICAN POLITICS — 2000 42-47 (1999) (discussing political composition of Congress).

[7] *See infra* notes 10-240 and accompanying text.

[8] *See infra* notes 241-325 and accompanying text.

[9] *See infra* notes 326-426 and accompanying text.

[10] Robert F. Blomquist, *Protecting Nature "Down Under": An American Law Professor's View of Australia's Implementation of the Convention on Biological Diversity* —

the 1982 passage, by the United Nations General Assembly, of the World Charter on Nature,[11] which, in turn, was enacted partly in honor of the tenth anniversary of the seminal 1972 Stockholm Conference on the International Environment.[12] Commencing in 1987, the United Nations Environmental Program (UNEP) convened a working group to determine the desirability and feasibility of an umbrella convention to rationalize current activities in the field of international wildlife habitat conventions and to address other areas which might fall under such a convention.[13] Formal negotiations between nations for a comprehensive and integrated global biodiversity convention commenced in 1991, one year in advance of the scheduled Rio de Janeiro United Nations Conference on Environment and Development (UNCED).[14] One authoritative treatise, while praising the diplomatic compromises that ensued during the relatively short year of formal negotiations, also criticizes the final text of what became the CBD in June of 1992 as being sometimes contradictory and often unclear, because of the haste which characterized its drafting.[15] On June

---

Laws, Policies, Programs, Institutions and Plans, 1992-2000, 9 DICK. J. ENVTL. L & POL'Y. 227 (2000).

[11] *Id.* at 236 (footnote omitted). *See also* The World Charter on Nature, UNGARES 37/7; 22 I.L.M. 455 (1983):

[The Charter on Nature] remains one of the most progressive and innovative statements of humanity's obligation to the natural world. Despite its mandatory language, however, the World Charter is a soft law instrument with no independent binding force. Although the World Charter did help to shape future negotiations, much of its vision, has not carried through to more recent [international legal] instruments.

[12] INTERNATIONAL ENVIRONMENTAL LAW AND POLICY, *supra* note 2, at 956.

[13] Blomquist, *supra* note 10, at 237 (internal quotation marks and bracketed language omitted; citing UNEP GC Res. 14/2 (1987)). *See also* MOSTAFA K. TOLBA, GLOBAL ENVIRONMENTAL DIPLOMACY: NEGOTIATING ENVIRONMENTAL AGREEMENTS FOR THE WORLD, 1973-1992 136-46 (The MIT Press 1998) [hereinafter TOLBA]; MICHAEL GRUBB ET AL. THE EARTH SUMMIT AGREEMENTS: A GUIDE AND ASSESSMENT 76-84 (Royal Institute of International Affairs 1993) [hereinafter GRUBB].

[14] Blomquist, *supra* note 10, at 237 (footnote omitted); TOLBA, *supra* note 13, at 146-60. For further background on the historic Rio conference, *see generally* RANEE L. PANJABI & ARTHUR C. CAMPEAU, THE EARTH SUMMIT AT RIO: POLITICS, ECONOMICS, AND THE ENVIRONMENT (Northwestern University Press 1997); Marc Pallemaerts, *International Environmental Law from Stockholm to Rio: Back to the Future, in* GREENING INTERNATIONAL LAW 1 (Phillipe Sands ed., The New Press 1994); Thomas L. Adams Jr. & Jose Martinez-Aragon, *Setting the Stage for the Earth Summit: Brazil 1992,* 22 ENVTL. L. REP. (ENVTL. L. INST. 10190) (March 1992); EARTH SUMMIT (Stanley Johnson ed., Kluwer Academic 1992).

[15] INTERNATIONAL ENVIRONMENTAL LAW AND POLICY, *supra* note 2, at 957. Some observers have been far more critical. *See* GRUBB, *supra* note 13, at 82 (referencing various opinions, including that of, Jacques Delors, who characterized the Convention

2, 1992 the Convention was signed in Rio by diplomatic representatives from around the planet, entering into force on December 29, 1993.[16]

The text of the CBD consists of 42 articles and two annexes.[17] The Preamble, among other assertions, affirms that the conservation of biological diversity is a common concern of humankind and that nations are responsible for conserving their biological diversity and for using their biological resources in a sustainable manner.[18] Article I of the CBD expresses the overarching-egalitarian and redistributional objectives of the Convention as follows:

> The objectives of this Convention, to be pursued in accordance with its relevant provisions, are the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies and by appropriate funding.[19]

The key substantive provisions of the CBD are Article 6 (General Measures for Conservation and Sustainable Use), Article 7 (Identification and Monitoring), Article 8 (In-situ Conservation), Article 9 (Ex-situ Conservation), Article 10 (Sustainable Use of Components of Biological Diversity), Article 11 (Incentive Measures), Article 12 (Research and Training), Article 13 (Public Education and Awareness), Article 14 (Impact Assessment and Minimizing Adverse Impacts), Article 15 (Access to Genetic Resources), Article 16 (Access to and Transfer of Technology), Article 17 (Exchange of Information), Article 18 (Technical and Scientific Cooperation), Article 19 (Handling of Biotechnology and Distribution of Benefits), and Article 20 (Financial Resources).[20] Articles 1-5 and 21-42 contain the definitional, jurisdictional, procedural and organizational provisions of the Convention.[21] Annex I of the Convention, termed "Iden-

---

as "being too timid").

[16] *Id.*

[17] Blomquist, *supra* note 10, at 238.

[18] *Id.* at 231-32, n. 3 (quoting CBD Preamble).

[19] *Id.* (quoting CBD, Article 1).

[20] *Id.* at 238-44, n. 27 (providing full text of CBD provisions).

[21] *Id.* at 238, n. 27. Among the most important of the procedural requirements of

tification and Monitoring," requires systematic monitoring by contracting nations of the following components of biological diversity within their borders: ecosystems, habitats, species, communities, genomes, and genes.[22] Annex II of the CBD sets forth detailed procedures for arbitration and conciliation of disputes arising under the Convention.[23]

The most recent international legal development stemming from the CBD was the adoption in February 2000 of the Cartagena Protocol on Biosafety ("Biosafety Protocol").[24] The Biosafety Protocol regulates trade in genetically modified organisms (GMOs) intended to be released into the environment,[25] while imposing information-sharing requirements for GMOs shipped in bulk as commodities for use as human food or animal feed, or in processed goods.[26] The Biosafety Protocol is a type of international hazardous management law that stems from the CBD's Article 19(3) earlier call[27] on the Parties to craft a protocol to address the safe use and transfer of living modified organisms (LMOs) derived from GMOs which are likely to have adverse environmental impacts that could affect the conservation and sustainable use of biological diversity,

---

the CBD is Article 26, which calls for periodic preparation and filing of National Reports by contracting parties regarding their implementation of the Convention. *Id.* at 245-46, n. 29.

[22] *Id.* at 244-45, n. 28 (providing full text of Annex I, CBD).

[23] *Id.* at 245, n. 28.

[24] *Cartagena Protocol on Biodiversity to the Convention on Biological Diversity* (Feb. 23, 2000), *available at*_http://www.biodiv.org/biosafe/Protocol/html/Biosafe-Prot.html [hereinafter Biosafety Protocol]. *See also Fifth Meeting of the Conference of the Parties to the Convention on Biological Diversity*, 15-26 May 2000; EARTH NEGOTIATIONS BULL. (IISD), Vol. 9, No. 10 (May 29, 2000), at 1, *available at* http://www.iisd.ca/vol09/enb0910 60e.html [hereinafter *Fifth Meeting*]. *See generally,* Gareth W. Schweizer, *The Negotiations of the Cartagena Protocol on Biosafety,* ENVTL. L. 577 (2000); Jonathan H. Adler, *More Sorry Than Safe: Assessing the Precautionary Principle and the Proposed International Biosafety Protocol,* 35 TEX. INT'L. L. J. 173, 191 (2000) (discussing CBD's GMO provisions, including the relationship between biodiversity and regulation of GMOs).

[25] ABA International Environmental Law Committee, *International Environmental Law — 2000 Annual Report,* ENV'T, ENERGY, AND RESOURCES L.: THE YEAR IN REVIEW 2000, at 269 (2001) (hereinafter 2000 YEAR IN REVIEW] (footnote omitted).

[26] *Id.* (footnote omitted).

[27] The CBD was adopted on May 22, 1992 in Rio de Janeiro, and entered into force on December 29, 1993. 2000 YEAR IN REVIEW, *supra* note 25, at 269. "The [Biosafety] Protocol became open for signing in May 2000, and entered into force when fifty nations promptly ratified it." Biosafety Protocol, *supra* note 24, at art. 37. As of November 23, 2000 some eighty states and regional economic organizations had signed the Protocol and two of these had ratified it. 2000 YEAR IN REVIEW, *supra* note 25, at 269, n. 44 (citing Protocol website).

taking into account the risks to human health.[28] Interestingly, in spite of being a non-voting party to the CBD, America actively influenced the Biosafety Protocol negotiations, successfully excluding pharmaceuticals altogether and excluding commodities from preliminary drafts of what became the Biosafety Protocol.[29] America was able to have this influence on the Protocol negotiation by virtue of its membership in an Open-Ended Ad Hoc Group of Experts known as the Biosafety Working Group (BSWG).[30]

B. A CHRONOLOGICAL SYNOPSIS OF AMERICA'S RESPONSE TO THE CBD, 1989-2002

1. Expressing Concern, 1989-1990

Building on the American environmental policy foundation of the Endangered Species Act of 1973,[31] and its subsequent

---

[28] United Nations Convention on Biological Diversity, (June 5, 1992), at art. 19(3) *available at* http://www.biodiv.org/chm/conv/cbd_text_e.htm. (visited Oct. 4, 2001). The Protocol focuses on LMOs, a subset of GMOs capable of transferring or replicating their genetic material. *See generally* Biosafety Protocol, *supra* note 23, at art. 3. In 1999, a total of 40 million hectares of GMO crops were being grown around the world. Of this global total, the United States accounted for 72%, with the remaining acreage chiefly among Argentina, Australia, Canada, China and South Africa. The most prevalent GMO crops are corn, cotton and canola. Paul E. Hagen & John B. Weiner, *The Cartagena Protocol on Biodiversity: New Rules for International Trade in Living Modified Organisms,* 12 GEO. INT'L. ENVTL. L. REV. 697, 698-99 (2000).

[29] 2000 YEAR IN REVIEW, *supra* note 25, at 271 (footnote omitted). *See generally id.* at 270-71 for a detailed negotiations history of the Biosafety Protocol during the 1990s leading to the passage of the Protocol in 2000. The Protocol "covers both GMOs intended for release into the environment, such as seeds for cultivation and animals for breeding, and those intended for use in food or feed, or in processing, such as bulk commodities like corn, cotton and soy." *Id.* at 270 (footnote omitted).

[30] *Id.* "The BWSG met six times between 1996 and 1999, and with the help of over 100 governments, including the United States, drafted a protocol that it sent for approval to an extraordinary meeting of the [CBD Conference of the Parties] (Ex-Cop) in February 1999." *Id.* Nevertheless, the dispute settlement procedures of the Biosafety Protocol are problematic for American biotechnology businesses because of "ambiguous and conflicting language" that opens the prospect that dispute resolution mechanisms in the Biosafety Protocol will "trump" World Trade Organization dispute mechanisms. *See* Paul E. Hagen, *The Green Diplomacy Gap,* 17 ENVTL. F. 28, 31 (2000).

[31] 16 U.S.C. § 153 et seq. "While not alone among U.S. wildlife and habitat protection laws, the U.S. ESA is the flagship enactment on wildlife protection, and it has served as a worthy domestic forum for debating the relationship between humans and the other creatures of the planet." WILLIAM H. RODGERS, JR. ENVIRONMENTAL LAW 996 (2d ed. 1994). *See* Mollie Beatty, *Biodiversity Policy and Ecosystem Management, in* BIODIVERSITY AND THE L. 11 (William J. Snape, ed., Island Press 1996) [hereinafter Snape]; Jason Patlis, *Biodiversity, Ecosystems, and Endangered Species, in* Snape,

expansive judicial interpretation in *TVA v. Hill* — the 1978 Snaildarter Case[32] — in 1989 William K. Reilly, the new Administrator of the U.S. Environmental Protection Agency (EPA) under President George H. W. Bush, asked EPA's Science Advisory Board (SAB) "to examine strategies for reducing major risks and to recommend improved methodologies for assessing and comparing risks and risk reduction options in the future."[33] In response to this charge, the SAB issued a report that, among other things, emphasized ecological risks.[34] Significantly, the SAB 1990 report concluded that ecological problems, not direct human health concerns, were the most serious environmental risks facing humankind.[35] According to the SAB, these high-risk problems are fourfold: habitat alteration and destruction; species extinction and overall loss of biological diversity; stratospheric ozone depletion; and global climate change.[36]

During 1990, a number of individual United State Senators from both major political parties made significant expressions of concern and policy proposals on the issue of global biodiversity protection. For example, in a January speech entitled

---

supra, at 43.

[32] 437 U.S. 153 (1978).

[33] Robert F. Blomquist, *The EPA Science Advisory Board's Report on "Reducing Risk": Some Overarching Observations Regarding the Public Interest,* 22 ENVTL. L. 149, 149 (1991) (quoting SCIENCE. ADVISORY BOARD, USEPA, REDUCING RISK: SETTING PRIORITIES AND STRATEGIES FOR ENVIRONMENTAL PROTECTION, at ii (1990)).

[34] *See id.* at 160-64.

[35] *Id.* at 164. Several key themes support the SAB's assessment. First, natural ecosystems are extraordinarily valuable, not only because of their immediate utility to humans, but also because of the intrinsic, moral value that must be measured in its own terms and protected for its own sake. *Id.* at 160-61 (footnote omitted; internal quotation marks omitted). Second, human beings are part of an interconnected and interdependent global ecosystem and past experience has shown that change in one part of the system often affects other parts in unexpected ways, while past EPA efforts at understanding environmental risk were incomplete or inappropriate, because the principles of welfare economics were defined too narrowly. *Id.* at 161 (footnotes omitted; internal quotation marks omitted). Third, temporal causation arising out of long-range environmental problems is a significant concern with a variety of dimensions including intergenerational equity wherein future generations of human beings are unable to vote on the wisdom of present industrial and developmental policies presenting ecological risk, while the irrevocable and non-sustainable nature of ecological resources is always a preeminent concern in long-term environmental planning. *Id.* at 162 (footnote omitted; internal quotation marks omitted). Fourth, traditional forms of economic analysis, as applied to the costs and benefits of economic development and environmental protection, have systematically undervalued natural resources. *Id.* at 162 (footnote omitted; internal quotation marks omitted).

[36] *Id.* at 164.

An Environmental Dividend: Capitalizing on New Opportunities for International Action, Senator Claiborne Pell (D-RI) then Chairman of the Senate Foreign Relations Committee, made some poignant observations about biodiversity protection and the importance of international environmental law including the following:

> • On several [past] occasions I have persuaded my Senate colleagues to endorse resolutions containing draft treaty language. I am pleased to say that two of these efforts were, in fact, converted from Senate resolution to an actual treaty now in force. These are a treaty banning the emplacement of weapons of mass destruction on the seabed floor and a treaty banning the use of environmental modification techniques in warfare[37];
>
> • In 1977 I put forward draft language for a third treaty. . . mandating the preparation of an environmental impact statement for all projects, public and private, that would impact on the territory of another state or on the global commons" [and] "[t]his idea was endorsed unanimously by the U.S. Senate in 1978[38];
>
> • I would urge we move forward quickly with proposals to draft and enact an international convention to protect biological diversity. This, too, is an issue of personal concern and I am proud to be the author of a provision of U.S. law establishing a program, under the auspices of our Agency for International Development, to assist countries in the protection of biological diversity. With the rate of extinctions rapidly accelerating there can be no doubt of the seriousness of the problem. Here in the presence of so many spiritual leaders I can only wonder how the divine must view the destruction of so many of His creations. And I wonder what He must think of the cavalier manner in which these extinctions are being carried out — elephants and rhinos destroyed for ivory trinkets and aphrodisiac powder, or perhaps worse, entire species obliterated without man even knowing what was once there;[39]

---

[37] Claiborne Pell, An Environmental Dividend: Capitalizing on New Opportunities for International Action, Address Before Global Forum on Environment and Development (Jan. 17, 1990) *reprinted in* 136 CONG. REC. S3 (daily ed. Jan. 23, 1990) (speech by Sen. Pell), *available at* http:/thomas.loc.gov.

[38] *Id.*

[39] *Id.*

> • A Treaty to conserve biological diversity should include provisions under which countries would register species-rich habitats, and in particular, the habitats of endangered species. Registration of the habitat would include an obligation to protect the habitat, and the species contained therein. In my view, a treaty should spell out minimum standards for habitat and species protection. In return for protecting these habitats, the registering countries should receive technical assistance for their protective activities and perhaps a priority for other kinds of assistance intended to encourage local peoples to value the preserved life resources;[40]

> • I would note that the last fifteen years [1975-89] has seen an enormous explosion in the number and scope of international legal agreements relating to the environment. The development of international environmental law is a low cost and highly beneficial way of protecting [the] global environment and of enhancing global environmental cooperation. This is a trend we must encourage. I would hope that UNEP's environmental law unit might become the nucleus of a new international environmental institute. Such an institute should draw on the resources of UNEP members, and in particular those with more developed domestic environmental law.[41]

In March of 1990, Senator Patrick Moynahan (D-NY) introduced a bill to initiate a research program on biological diversity.[42] He noted that The National Science Board estimates that the rate of extinction over the next few decades is likely to rise to at least 1,000 times the normal background rate of extinction[43] and many scientists estimate that from one-quarter to one-half of the Earth's species will become extinct in the next 30 years.[44] Senator Moynahan informed his Senate colleagues that:

> The Bill which I am introducing today will help us understand the magnitude and impact of the laws of biological diversity. It establishes conservation of biological diversity as a national goal. The Bill also establishes a National Center for

---

[40] *Id.*
[41] *Id.*
[42] 136 CONG. REC. S3544 (daily ed. Mar. 29, 1990) (statement of Sen. Moynahan).
[43] *Id.*
[44] *Id.*

> Biological Diversity and Environmental Research. This Center will be the focal point for research, data compilation, and dissemination of information on biological diversity. Since biological diversity is, by its scope, a multi-disciplinary, multiagency issue, the Bill also creates an interagency working committee to develop a coordinated Federal strategy for conservation of biological diversity. A National Scientific Advisory Committee is established to oversee the implementation of the national strategy.[45]

On July 31, 1990 Senator Al Gore (D-TN), in conjunction with a bipartisan group of six other senators, (Senator John Chafee (R-RI), Senator John Heinz (R-PA), Senator Rudy Boschwitz (R-MN), Senator John Kerry (D-MA), Senator Tim Wirth (D-CO), and Senator Max Baucus (D-MT). provided a formal report to the Senate on the results of the interparliamentary conference on the Global Environment, the first U.S.-sponsored conference of international legislators to focus on the global environment.[46] Senator Gore told his colleagues that during several sessions of the Conference, held in Washington D.C. the previous spring, legislators from 42 nations produced agreements in seven areas[47]:

> First of all, the area of global climate change; second, the area of stratospheric ozone depletion; third, the problem of explosive population growth; fourth, the problems of deforestation and desertification, closely related; fifth, the problem of sustainable development, which is the key to solving the other problems; sixth, the challenges facing oceans and water resources; and seventh, the loss of biodiversity, or the disappearance of living species on Earth.[48]

Senator Gore acknowledged in the report that one of the most difficult divisions at the Conference was between the developed world and the developing world whereby:

---

[45] *Id.*

[46] 136 CONG. REC. S11139 (daily ed. July 31, 1990) (statement by Sen. Gore). The Conference employed each of the seven U.S. Senators who participated with each Senator being a chair of one of the seven working groups and each committee co-chaired by a delegate from one of the parliamentary groups visiting the Conference. *Id.*

[47] *Id.*

[48] *Id.*

> Those nations which entered the industrial revolution early on and achieved a higher standard of living and better way of life for their peoples have a particular point of view which stands, frequently, in contrast to the point of view shared by peoples in those nations throughout the world that are still in abject poverty, have not undergone the process of industrialization, and really have a standard of living for their peoples far different from what we enjoy.[49]

The findings of the Interparliamentary Conference, which specifically dealt with the issue of loss of biodiversity, were numerous. In the first instance, the biodiversity findings set forth general facts, figures, and concepts:

> The 10 to 30 million species that inhabit earth are threatened by human activity. Estimates are that one hundred species become extinct every day and, because the pace is expected to increase, by the year 2000, one million species could become extinct. At this rate, more than half of the world's species could disappear within one generation.
>
> In the complex interaction of ecological systems that support life, loss of even small links in the biological chain can doom an entire system. Because many have symbiotic relationships, continuation of the system depends on the presence of most of the organisms in the systems. In addition, medicines and pharmaceuticals depend heavily on specialized chemistry found in living organisms. Loss of these wild organisms could mean the loss forever of discoveries of new drugs that could cure human diseases or form the basis of ecologically benign chemicals.
>
> The domesticated plants that form the basis for the world's agriculture must be replaced, from time to time, by infusions of stock from wild plants. Some of the 'raw material' of biotechnology is found in the genetic riches of living organisms that are being destroyed on the current wave of extinctions, the most rapid loss of species since the mass extinctions of eras before human life on earth.[50]

---

[49] *Id.*

[50] *Id.* at S11147 (inserted material). Moreover, the findings of the Interparliamentary Conference, brought to the attention of the U.S. Senate, also pointed out that:

> Earth's various plants, animals, and micro-organisms provide the rice and fish we eat, the penicillin doctors use to save lives, the bamboo poles villagers use to

Second, the biodiversity findings of the Interparliamentary Conference, introduced into the *Congressional Record*, offered a disturbing set of trends:

> If current trends continue, extinctions inn [*sic.*] the coming decades may represent the most massive loss of species since the end of the Cretaceous era some 65 million years ago. Since 1600, 1 percent of birds and 2 percent of mammals are known to have become extinct; the unrecorded extinctions probably far exceed these figures. Already, the rate of extinction of birds and mammals may be as much as 100 to 1,000 times the background extinction rate. The single greatest cause of species extinction in the next half-century will be tropical deforestation. Scientists predict that roughly five to 10 percent of closed tropical forest species will become extinct per decade at current rates of tropical forest loss and disturbance. With more than 50 percent of species occurring in closed tropical forests and a total of roughly 10 million species on earth, this amounts to the phenomenal extinction rate of more than 100 species per day. Globally, roughly 5 percent of the world's species will be lost per decade if current trends continue.
>
> The extinction crisis is not restricted to tropical forests. Freshwater habitats are being dramatically altered as rivers are impounded and exotic species introduced. In the southeastern United States, for example, 40 to 50 percent of freshwater snails have been driven to or near extinction as water impoundments were built and rivers straightened, widened, and deepened. Oceanic islands, where most extinctions have occurred in past centuries, also remain among the most threatened with extinction on earth. Some 60 percent of the plant species endemic to the Galapagos Islands are threatened with extinction, as are 40 percent of Hawaii's endemic species and 75 percent of the endemic plant species of the Canary Islands. Mediterranean climate zones, with their high

---

build their homes, and other natural products. They also provide options for addressing future human needs, and invaluable aesthetic, spiritual, and educational benefits. Just as important, species provide more subtle benefits in the form of wide-ranging ecological services. Coast wetland ecosystems formed from various plant and animal species remove pollutants from the water and provide the spawning and rearing habitat for commercially important fish and crustaceans. Similarly, forest ecosystems help regulate water discharge into rivers, which affects the frequency of foods [*sic.*] and the availability of water during dry seasons.

Id.

> plant species richness and distinctive floras, face continuing threats of species loss through habitat conversion and species introductions.[51]

Third, the Interparliamentary Conference biodiversity findings, incorporated into the *Congressional Record*, focused on the question of responsibility:

> Where does the blame for the loss of biodiversity and the degradation of biological resources lie? On the surface, the answer seems clear. The proximate causes include large-scale clearing and burning of forests, overharvesting of plants and animals, indiscriminate use of pesticides, draining and filling of wetlands, destructive fishing practices, air pollution, and the conversion of wildlands to agriculture and urban areas. The maintenance of large, relatively intact ecosystems also have implications for regional and global environmental conditions. If the forest cover of Amazonia were lost, computer models predict that rainfall would decrease significantly in the region and the loss of the forest carbon sink would significantly increase the rate of global climate change.[52]

---

[51] *Id.* The findings of the Interparliamentary Conference continue in this regard: Habitat loss and degradation are the most important causes of the extinction crisis, but overharvesting, species introductions, pollution, and other causes also take a significant toll. Global warming will exacerbate the loss and degradation of biodiversity by increasing the rate of species extinction, changing population sizes and species distributions, modifying the composition of habitats and ecosystems, and altering their geographical extent. *Even if all human impacts on the biosphere were to cease immediately, species extinctions due to the impacts that have already taken place would continue for decades.*

Id.

[52] *Id.* An article entitled *The Globetrotters* by Robert Cahn describing the April 1990 Interparliamentary Conference, published in the summer 1990 edition of AMICUS, was inserted into the Congressional Record by Senator Gore. *See* 136 CONG. REC. S12604 (daily ed. Aug. 15, 1990) (inserted by Sen. Gore). This article made it clear that Senator Gore was "the leading global environmentalist in Congress"; that "Gore introduced legislation authorizing the conference, and won approval for $500,000 in Senate funding." *Id.* Moreover, the article pointed out that Senator Gore was "the author of several bills [then] before Congress, including the World Environment Policy Act which addresses virtually all areas of the global environment; a package of legislation addressing protection of the stratospheric ozone layers; a resolution that would protect Antarctica from mining and minerals development and preserve the continent as a global ecological commons; and a bill for a Strategic Environment Initiative focusing on developing, marketing, and exporting technologies that will allow economic growth to continue in an environmentally sustainable manner." *Id.*

Along with the filing of their report on the 1990 Interparliamentary Conference,[53] Senators Gore, Chafee, Baucus, Heinz, Kerry, Boschwitz, and Wirth introduced *Senate Resolution 316 — Relative to the International Conference on the Global Environment* which called for the United States to urgently seek international cooperation, including negotiations on the necessary treaties and conventions on the pressing issues identified at the Interparliamentary Conference on the Global Environment.[54] Specifically, *Senate Resolution 316* urged that the United States should take the lead in negotiations to establish an international convention on protection of biological diversity, noting that such a convention is currently under development and deserves strong support by the United States.[55] Moreover, in January of 1989 Senator Rudy Boschwitz (R-MN) and Senator Al Gore (D-TN) introduced a bill to establish the Office of Global Warming within the Department of State.[56] The bill had a separate Title V entitled "Biological Diversity," which included the following: (1) the Earth's biological diversity is being rapidly reduced; (2) reduced biological diversity may endanger the functioning of ecosystems and critical ecosystem processes that moderate climate change, and may endanger support of tropical forests; (3) most losses of biological diversity are unintended and largely avoidable consequences of human activity; (4) a comprehensive and coordinated Federal strategy is needed to arrest the loss of biological diversity and also, where possible, to restore biological diversity both through natural recovery and active management; and (5) because it cannot be predicted which biological resources will be most important for future needs, maintaining

---

[53] *See supra* notes 46-52 and accompanying text.

[54] S. Res. 316, 101st Cong.,135 CONG. REC. S11431 (daily ed. July 31, 1990), *available at* http://thomas.loc.gov. The resolution was referred to the Senate Foreign Relations Committee. *Id.*

[55] *Id.* Interestingly, in 1989 the U.S. House of Representatives and the U.S. Senate both received executive communications pursuant to 22 U.S.C. § 2151g from the Assistant Secretary, Legislative Affairs, Department of State, transmitting on behalf of the President, a Report on Progress Toward Negotiating the International Convention to Protect Biological Diversity. *See* 135 CONG. REC. H7982 (daily ed. Nov. 2, 1989) (executive communication); 135 CONG. REC. S15153 (daily ed. Nov. 7, 1989), *available at* http://thomas.loc.gov.

[56] S. 603, 101st Cong. (1989), *available at* http://thomas.loc.gov.

the diversity of living organisms in their natural habitats is prudent policy.[57]

2. Expressing Disagreement, 1991-92

With the start of the 102nd Congress in early 1991, several key American policymakers and opinion leaders started to express basic disagreement over the advisability of the United States committing to sign a multilateral biodiversity convention. This difference of opinion also carried over to disagreement about American commitment to other global environmental undertakings. No doubt driving this rise in the volume of rhetoric were two scheduled, politically charged events in 1992: (1) the June 1992 Rio Earth Summit and (2) the November 1992 American Presidential election.

On February 6, 1991, Senator Malcolm Wallop (R-MT) threw fat into the fire by noting, on the floor on the Senate, "yesterday several of my colleagues launched a big green attack against President Bush"[58] and opining that "[a]s usual, their obsolete missiles were off target,"[59] while "[t]he only damage was to the credibility of extremists in the environmental movement"[60] and "[t]heir barrage was precipitated by the White House proposals on global warming to the U.N. Intergovernmental Negotiating Committee on a framework convention on climate change."[61] Senator Wallop continued his oration, focusing on the issue of global warming but, by implication and by reference to newspaper articles by Warren Brookes of the conservative newspaper *The Washington Times*,[62] on the wider issue of global biodiversity endangerment. Senator Wallop said:

---

[57] *Id* .at § 501.

[58] 137 CONG. REC. S1683 (daily ed. Feb. 6, 1991) (statement of Sen. Wallop) *available at* http://thomas.loc.gov.

[59] *Id.*

[60] *Id.*

[61] *Id.*

[62] *Id.* The following newspaper articles by Warren Brookes were appended to Senator Wallop's oral remarks: *Debate Hotter Than the Earth?,* WASH. TIMES, Feb. 5, 1991; *Warmer, Greener, Better?,* WASH. TIMES, Feb. 5, 1991 (noting Tennessee Democratic Sen. Albert Gore's hopes for his presidential bid got a boost from last week's announcement that 1990 was the warmest year in the global temperature record) *reprinted in* 137 CONG. REC. S1683-84 (daily ed. Feb. 6, 1991) (appended to statement of Sen. Wallop), *available at* http://thomas.loc.gov.

> This rather formidable sounding [United Nations] committee is negotiating a treaty to limit emissions of the so-called greenhouse gases. As my colleagues will recall, back in the late 1970's, the climate issue was whether the Earth was entering a new ice age. We were experiencing cold winter temperatures.
>
> One thing Members of Congress have simply not been able to come to grips with is that God has something to do with life and that changes in climate are not necessarily somebody's fault. The image at that time was one of glaciers rolling down the Appalachian Mountains, engulfing Washington in ice. The closest we came to an ice age was when the Potomac River froze, allowing us to walk over to Virginia.
>
> Having been discredited about the ice age, the enviro-scientists decided we were really experiencing global warming. Several years ago, the Senate Energy Committee held hearings with NASA (the National Aeronautics and Space Administration), NOAA (the National Oceanic and Atmospheric Administration), and university scholars describing their elaborate computer models which demonstrated that the Earth was turning into a greenhouse because of carbon dioxide and CFC emissions. As work progressed, questions arose about flaws in the models and in measuring techniques. For instance, we rely on temperature data over a 100-year period taken in such locations as Rosslyn, VA, which was transformed from pastures to concrete canyons. A more appropriate measure is average ocean temperatures which have not been affected by the pouring of concrete. Analysis of such records has called into question the argument about global warming.
>
> The advocates of global warming have ignored these recent twists in the science, and pretend that their original arguments are valid. President Bush, on the other hand, has acknowledged the scientific uncertainty. He has taken a reasoned approach which seeks to limit greenhouse gasses without destroying our economy. At the U.N. conference, he has proposed an action plan to reduce emissions of gases affecting the climate. *We are exercising prudence, but not becoming hysterical about this problem.* I ask unanimous consent that

> [some] recent articles by Warren Brookes on the lack of warming data be printed in the *Record.*[63]

Senator Wallop also raised the issue of access to public lands, taking swipes at so-called elitists (including President Bush's EPA Administrator, William Reilly) by noting that:

> Yesterday, while the President was being attacked for not being green enough, I introduced a bill which will promote environmental security by reducing greenhouse gases. This bill is the National Energy Security Act. Ironically, some of the environmental groups which are most concerned about greenhouse warming attacked [my] bill without having even read it. One has to wonder about their agenda [but] we can receive the full flavor of their agenda by reading the recent seven-part series by Warren Brookes on how various green groups are seeking to deny access to public lands. *This is a growing threat to private property and public access.*[64]

Apparently, President Bush did not heed the political flak from the right-wing of his party, exemplified by Senator Wallop[65], when the President sent the Congress on April 18, 1991 an environmental report card of his first two years in office, appending the annual report of the Council on Environmental

---

[63] 137 CONG. REC. S1683 (daily ed. Feb. 6, 1991) (emphasis added) (statement of Sen. Wallop), *available at* http://thomas.loc.gov.

[64] *Id.* at S1684 (daily ed. Feb. 6, 1991) (statement by Sen. Wallop) (emphasis added), *available at* http://thomas.loc.gov. The following newspaper articles by Warren Brookes were appended to Senator Wallop's oral remarks: *Greenlining: Backdoor to Limiting Our Use of Land?,* WASH. TIMES, Jan. 17, 1991 (noting "Not only are government land-taking budgets . . . on the rise, but government is extending its control over our property through two laws, wetlands preservation and endangered species, with a third method called 'Greenline Parks', well under way with more than 50 million private acres now being targeted"); *Big Park Coming At You?,* WASH. TIMES, Jan. 21, 1991; *Hijacking Development?,* WASH. TIMES, Jan. 23, 1991; *Land Trusts or Government Advance Men?,* WASH. TIMES, Jan. 25, 1991; *Development for a Favored Few?,* WASH. TIMES, Jan. 25, 1991; *Great Green Scam?,* WASH. TIMES, Jan. 28, 1991; *Exclusive Club of R&R?,* WASH. TIMES, Jan. 29, 1991 (characterizing Bush EPA Administrator William Reilly as part of a network of conservation elite, including Laurance Rockefeller, noting that "Mr. Reilly's main interest is not in 'big environment' issues like acid rain or global warming, but with national land use planning. In 1972 Mr. Rockefeller named him executive director of the Task Force on Land Use and Urban Growth, where he helped write The Use of Land: A Citizens Policy Guide. This laid out many of the premises for using 'biological diversity' as a rationale for limiting the two bête noires of environmentalism[:] single family housing expansion (urban sprawl) and commercial agriculture").

[65] *See supra* notes 58-64 and accompanying text.

Quality.[66] The President started his Message with a philosophical flourish, emphasizing the importance of environmental stewardship, observing that:

> Of all the great social and technological changes of the 20th century, none may be more crucial to our well-being and that of future generations than the change that has occurred in the way we view our environment. Ours was the first generation to see the many colors of Earth from the vastness of space, and to recognize that our decisions will determine whether the next generation lives in a polluted world of lowered expectations or *a world that sustains humanity and a wondrous diversity of life.*[67]

Next, President Bush's message focused on 1990 and characterized that year as a landmark year in the Nation's efforts to enhance environmental quality,[68] proudly observing:

> • We enacted the Clean Air Act Amendments of 1990, providing the United States with the world's most advanced, comprehensive, and market-oriented laws to address air pollution, including acid precipitation, urban air quality, toxic air pollutants, and global ozone layer depletion.
>
> • We adopted an international agreement and enacted laws to phase out chlorofluorocarbons (CFCs) and other substances that deplete the Earth's ozone layer, which protect us from the harmful effects of solar radiation.
>
> • We enacted the Oil Pollution Act of 1990 and adopted a major international agreement to strengthen laws related to oil pollution prevention, liability, and response.
>
> • We enacted the most environmentally progressive farm bill ever. It will help farmers protect water quality and wildlife habitat and it launches a part of our America the Beautiful initiative to begin a long-term national tree planting and improvement campaign aimed at both rural and urban areas.
>
> • In partnership with the Nation's Governors, we developed ambitious national educational goals, while the Congress and

---

[66] *Annual Report of the Council on Environmental Quality — Message From the President,* PM 41, *reprinted in* 137 CONG. REC. S4731 (daily ed. April 18, 1991) (laid before the Senate by the Presiding Officer), *available at* http://thomas.loc.gov.

[67] *Id.* (emphasis added).

[68] *Id.*

> the executive branch strengthened environmental education programs. These actions are an essential part of our efforts to revitalize American education and to improve the environment.
>
> • We made other commitments to environmental stewardship, including the expansion of national parks, wildlife refuges, marine sanctuaries, and recreation areas; accelerated cleanup of Federal facilities; enhanced protection of marine mammals, the African elephant, the Florida panther, and other threatened species; and the suspension of up to 10 years of oil and gas leasing in many areas of our coastlines pending further environmental and resource analysis.[69]

In the remainder of his 1991 Environmental Message to Congress, President Bush stressed themes and concepts that indicate that he — at least on the rhetorical level — was aware of the importance of the United States taking national and international actions to preserve and protect biodiversity. For example, he exhorted Congress to the following challenge: "Our efforts to enhance the quality of the domestic environment must be accompanied by comparable efforts toward global environmental quality. In these times, Americans are aware that our political and economic security is affected by actions occurring abroad."[70] In a similar vein, Bush articulated an internationalist environmental vision for the United States, contending that "Americans are aware that our political and economic security is affected by actions occurring abroad"[71] and that "[i]n the months and years ahead, we need to broaden our dialog with other nations and international institutions and to-

---

[69] *Id.* President Bush continued by noting: "Our achievements in 1990 add to a growing national record of environmental action that has improved the quality of American life. Compared to the conditions facing Americans earlier in my lifetime, our skies and streams are cleaner, and our major technologies are less wasteful." *Id.* Looking to the future, Bush stated: "Our work, however, is incomplete. Americans are sobered by the scope of the stewardship challenge and recognize that it requires ongoing vigilance and action. We know, for example, that increased trade and economic development is needed to reduce poverty and improve the quality of life for all of the world's people. However, if we fail to make wise economic and environmental choices, those needed increases in economic activity are likely to result in new burdens on the Earth's ability to sustain life." *Id.*

[70] *Id.*

[71] *Id.*

gether address environmental issues that know no boundaries."[72]

On January 31, 1992, a mere nine months after President Bush's expansive Message to Congress on the environment,[73] a narrowly bipartisan group of eleven U.S. Senators, with Senator William Cohen of Maine as the sole Republican co-sponsor, proposed *Senate Concurrent Resolution 80 — Relative to the U.N. Conference on Environment and Development.*[74] The need for the United States, in conjunction with the international community, to take a leadership stance at the upcoming Rio Conference was articulated in seven predicative clauses, which spoke both expressly and implicitly of the importance of international action on biodiversity protection:

---

[72] *Id.* President Bush, looking ahead to the 1992 Rio Conference, voiced his firm support for a global warming convention, and a convention on forests; however, in his 1991 Message he omitted reference to support for a separate convention on biodiversity. As indicated in the following quotation from his Message, however, Bush specifically mentioned the biological diversity benefits of a convention on forests:

> Looking abroad, the United States will continue to seek to conclude an international convention on global climate change in time for its signing at the 1992 United Nations Conference on Environment and Development in Brazil. In our view, such a convention must be comprehensive in scope, addressing all sources and sinks of greenhouse gases, adoption as well as mitigation measures, and continued scientific and economic research policy responses. The United States is committed to a series of domestic actions that have many benefits such as curbing air pollution, conserving energy, and restoring forest lands and that also help to curb greenhouse gas levels. These actions — recently established in law were proposed by my Administration, will hold U.S. net emissions of greenhouse gases at or below the 1987 level through the foreseeable future. An effective response to potential climate change also requires that all nations participate and meet obligations that are appropriate to their circumstances.
>
> I have also proposed that a worldwide convention on forests be developed and ready for signing by world leaders at the U.N. conference in 1992. *Forests provide diverse benefits*, helping to clean our air and water, *foster biological diversity*, and sequester greenhouse gases. We should take steps now to protect and enhance them. In the coming year, I also hope we can move forward on U.S. proposals for integrated economic and environmental assistance in such regions as Latin America and the Caribbean, Eastern and Central Europe, and the Middle East.

Id. (emphasis added).

[73] *See supra* notes 66 to 72 and accompanying text.

[74] S. Con. Res. 89, 102nd Cong. (1992), *available at* http://thomas.loc.gov. The bipartisan sponsors of the concurrent resolution were Senator John Kerry (D-MA), Senator Carl Levin (D-MI), Senator Al Gore (D-TN), Senator William Cohen (R-ME), Senator Patrick Leahy (D-VT), Senator Paul Wellstone (D-MN), Senator Joseph Lieberman (D-CT), Senator Quentin Burdick (D-ND), Senator Daniel Akaka (D-HI), Senator Tom Harkin (D-IA), and Senator Claiborne Pell (D-RI). The proposed resolution was referred to the Senate Committee on Foreign Relations.

> Whereas the health and stability of the environment of the Earth are threatened by global climate change, depletion of the ozone layer, deforestation, *the loss of biological diversity*, increasing population, disposal of hazardous chemicals, marine pollution, the depletion and contamination of fresh water supplies, and other international environmental problems;
>
> Whereas it is in the interest of the citizens of all nations to encourage environmentally sustainable development policies that allow for the preservation and renewal of natural resources;
>
> Whereas the maintenance of global environmental health requires increased cooperation among nations, including new agreements and policies designed for the achievement of such maintenance;
>
> Whereas the United Nations Conference on Environment and Development (hereinafter referred to the U.N.C.E.D.) will convene in June of 1992 in Rio de Janeiro, Brazil;
>
> Whereas the U.N.C.E.D. will provide a rare and important opportunity to make progress towards global environmental protection and sustainable development;
>
> Whereas this Nation has sufficient power and influence to play a major role in determining the success or failure of U.N.C.E.D.; and
>
> Whereas the well-being of present and future generations of this Nation depends on the preservation of a healthy and stable world environment[.][75]

On March 18, 1992, Congressman Dante B. Fascell (D-FL), Chairman of the House Committee on Foreign Affairs, extended remarks to his colleagues noting that "[i]t is ironic that the United States shrinks from a leadership role [in the upcom-

---

[75] *Id.* (emphasis added). On March 19, 1992 the U.S. House of Representatives approved H. Con. Res. 292, 102nd Cong. (1992), *available at* http://thomas.loc.gov. This resolution referenced global environmental and development issues such as climate change, depletion of the ozone layer, the disposal of hazardous chemicals, deforestation, the loss of biological diversity, marine pollution, threats to the world's supply of freshwater, and rapid population growth as constituting "high priority concerns of the United States, affecting the security and well-being of present and future generations." *Id.* The House proposal focused on the United Nations Conference on Environment and Development and the need for "the personal participation of the President of the United States." *Id.*

ing Rio Earth Summit] at the same time our Department of Defense is calling for other nations to cede to the United States an unchallenged position as the world's only superpower."[76] He inserted into the record a newspaper article.[77] The inserted newspaper article observed, among other things, that: "Virtually alone among the developed nations, the United States is unwilling to make any specific commitments to reduce its share of carbon dioxide emissions to deal with climate change, but favors commitments by developing nations to protect forests and conserve species. Seen from the developing world, this is an invitation to bear an inordinate burden for the sake of the global environment while granting affluent nations further license to pollute."[78]

Among the sixteen specific resolutions in proposed *Senate Concurrent Resolution 89* was "a sense of the Congress that the President should . . . support the development of a global strategy and action plan to conserve the biological diversity of plant and animal species."[79] Importantly, Democrat Senator John Kerry of Massachusetts, the chief sponsor of *Senate Concurrent Resolution 89,* leveled criticism at President Bush in the Senator's remarks, inserted in the *Congressional Record,* introducing the proposal. Senator Kerry's introductory barbs thrown at the Republican President, stated that "[t]he record of U.S. participation in the conference thus far raises doubts that we have taken full advantage of our position in achieving environmentally sustainable worldwide policies."[80] Kerry elaborated on his "doubts" by the following general set of criticisms of the Bush Administration's actions in preparing for the upcoming Rio Conference:

> I am concerned that the administration has not appeared to see the Conference as an opportunity to make major strides toward global environmental and developmental objectives. Rather it has appeared to be more concerned with limiting the cost to the United States of the Conference's actions and rec-

---

[76] 138 CONG. REC. E715 (daily ed. Mar. 18, 1992) (statement by Cong. Fascell).

[77] Jay D. Hair, MIAMI HER., Mar. 4, 1992, *reprinted at* 138 CONG. REC. E716 (daily ed. Mar. 18, 1992), *available at* http://thomas.loc.gov.

[78] *Id.*

[79] S. Con. Res. 89, 102nd Cong. (1992), *available at* http://thomas.loc.gov.

[80] 138 CONG. REC. S 807 (daily ed. Jan. 31, 1992) (statement of Sen. Kerry), *available at* http://thomas.loc.gov.

> ommendations. Earlier, the U.S. delegation was directed by the White House to avoid presenting initiatives to the UNCED Preparatory Committee meetings that would incur potential future budgetary costs. Instead, the administration is advocating the reprogramming of budgetary resources from existing developmental programs. Such an injunction puts the United States in an unnecessarily negative posture toward this vitally important conference.
>
> Furthermore, despite the fact that every other member of the Group of Seven industrialized countries has committed to sending its head of state to the Earth Summit, we still do not have a commitment from the President to attend the Conference. It is anticipated that between 60 and 80 heads of governments worldwide plan to be in Rio. Failure of President Bush to participate actively in this Conference would sadly squander the great opportunity the Conference offers the United States to try and regain some of our standing as an international leader on environmental issues.[81]

Senator Kerry specifically challenged what he referred to as "disturbing reports that the White House views the Conference as a potential embarrassment . . . particularly because of the isolated U.S. position on climate change."[82] Moreover, linking the Bush White House's reluctance to lead in pre-Rio international negotiations addressing forest preservation — and concomitant biodiversity protection — to the then-raging domestic political spotted owl controversy in the Northwest,[83] Kerry stressed the importance of American leadership on these interconnected issues by opining:

> With respect to forestry . . . the world has become increasingly aware in recent years of the threat to its primary forest[s], and especially its tropical forests. It is estimated that forests are disappearing at the rate of 1½ acres every second. The rapid loss of forests result in dozens of species becoming extinct every day. Forests cover less than 10 percent of the Earth's surface, and are believed to contain to over 50 percent

---

[81] *Id.*

[82] *Id.* Senator Kerry added: "Those who participated and observed the most recent preparatory committee meeting of the Earth Summit have reported that the United States' role in the negotiations overall was more negative than positive, because of the restricted negotiating brief given the delegation." *Id.*

[83] *Id.*

> of the world's species and a majority of the endangered species. Among those threatened species are many which are needed to treat diseases.
>
> The best known example is the rosy periwinkle, which is the source of alkaloids used to treat childhood leukemia and Hodgkin's disease with a significant success rate. The National Cancer Institute has awarded over $2.5 million in contracts for research institutions to collect tropical plant species to be tested for anticancer activity. The United States has a vital interest in preserving the untapped wealth of biological resources that is being lost with forests.
>
> * * *
>
> The discussion about the world's forests at UNCED will focus on principles that could serve as the basis for an international agreement on those forests. Unfortunately, the negotiating text on forest principles that was produced at the last Preparatory Committee meeting is weak in a number of areas. It is critical that the United States fight for a stronger document and support forestry principles that would slow the rate of global deforestation, increase worldwide forest cover, and provide for international protection, growth, and sustainable use of mature forests.[84]

On April 7, 1992, the United States Senate, having received *Senate Concurrent Resolution 89* favorably reported from the Committee on Foreign Relations with amendments, proceeded to debate and vote on the proposal.[85] The Foreign Relations Committee version of *Senate Concurrent Resolution 89* retained the same language as the original proposal regarding American involvement in an international biodiversity convention, to wit: "That it is the sense of the Congress that . . . the President should . . . support the development of a global strategy and action plan to conserve the biological diversity of plant and animal species."[86] However, the Foreign Relations

---

[84] *Id.*

[85] S. Cong. Res. 89, as amended, 102nd Cong. (1992), *available at* http://thomas.loc.gov. The debate is reported at 138 CONG. REC. S4689-897 (daily ed. April 7, 1992) *available at* http://thomas.loc.gov.

[86] S. Cong. 90, as amended, proposed resolution (4), 102nd Cong. (1992), *available at* http://thomas.loc.gov, discussed at 138 CONG. REC. S 4869 (daily ed. April 7, 1992), *available at* http://thomas.loc.gov. *Compare supra* note 79 and accompanying text.

Committee version added a new subsection b. to *Senate Concurrent Resolution 89*, to wit: "The President should not support any action or undertake any commitment" regarding international environmental conventions, strategies or action plans at the Rio Earth Summit "which he believes would have an adverse effect on the competitiveness of American industry or that would result in a net long-term loss of American jobs."[87]

In the general debate on adoption of *Senate Concurrent Resolution 89*, as amended, Senator Malcolm Wallop (R-MT) characterized the negotiations leading up the June Rio Conference as "in a state of chaos" because of "disagreements between the so-called Third World nations . . ., the emerging economic nations, and the economic nations."[88] Senator Wallop also expressed general concern that "[s]ound science, not science driven by a political agenda" should provide a "cornerstone for a sound response to the potential for climate change," and presumably other international environmental issues like biodiversity protection.[89]

In the general debate on the adoption of *Senate Concurrent Resolution 89,* as amended, Senator John Kerry (D-MA) stated that "[a] number of years ago, the President of the United States suggested that he wanted to be known as the environment President,"[90] and that the Rio Earth Summit "is an extraordinary opportunity to be exactly that, to define himself and to help define leadership for the world."[91] Yet, in Senator Kerry's view, while one could "point easily to cosmetic motions that are made,"[92] the representative of the United States at Rio would be "hampered by . . . lack of leadership, by a President who simply is not present on this issue and does not recognize the enormity of the choices we face with respect to environmental issues internationally."[93] Kerry continued his attack on

---

[87] S. Cong. Res. 89, as amended, proposed resolution (b), 102nd Cong. (1992), *available at* http://thomas.loc.gov,_discussed at 138 CONG. REC. S 4869 (daily ed. April 7, 1992), *available at* http://thomas.loc.gov.

[88] 138 CONG. REC. S 4870 (daily ed. April 7, 1992) (statement of Sen. Wallop), *available at* http://thomas.loc.gov.

[89] *Id.*

[90] 138 CONG. REC. S 4871 (daily ed. April 7, 1992) (statement of Sen. Kerry), *available at* http://thomas.loc.gov.

[91] *Id.*

[92] *Id.*

[93] *Id.*

President Bush by observing: "Like many others, I am frankly, puzzled and disappointed by the administration's failure to exercise the kind of strong leadership for which this resolution calls."[94] In Senator Kerry's view, "[i]nstead of approaching the [Rio] conference as an opportunity to make great progress, the [Bush] administration has literally been treating it like an ordeal that has to be endured,"[95] while "instead of taking the lead, we are . . . following, and I would say distantly following, the lead of others."[96] Then, Senator Kerry uncovered a raw political nerve that might have potentially explained, in the midst of the Republican Presidential primary season, why President Bush was hesitant to lead the American delegation at the upcoming Rio Conference:

> Dozens of world leaders are expected to gather in Rio, but the President of the United States has not yet committed to go. He said this past week [in April of 1992] that running for the Presidency may keep him home.
>
> Mr. President, it is really hard to understand how the somewhat tattered campaign of Pat Buchanan could really take precedence over the concerns of the planet . . . It seems to me that if you have a true commitment to the environment and you understand the enormity of the choices that we face right now, a week in Rio, a few days in Rio, would be worth months on the campaign trail. It would, in fact, be one of the first substantive things that we have seen in the context of an environmental Presidency and would do more to add substance to a Presidency lacking in substance . . . than anything I could think of.
>
> I believe the real reason the President is reluctant to go is that the administration really has not had anything seriously to say about the environment either domestically or internationally in three and one-half years. The symbols have been there, some tree plantings, the Department of Environment proposals, and some photo opportunities at the Grand Canyon and elsewhere. But the reality is when we [the Democrats] had to negotiate the details of the Clean Air Act, when we had to press for water treatment facilities and other things, the administration has been absent without leave.

---

[94] *Id.*
[95] *Id.*
[96] *Id.*

> . . . I think it is important when contemplating the administration's policies to remember that this is not a penny-ante political debate. It is a rare and real historic opportunity. We are talking about the long-term ability of the atmosphere of this planet to sustain human life. We are talking about stopping the destruction of habitat that is now causing species to become extinct faster than any time since the Ice Age. We are talking about the preservation and sound management of forest resources that are today disappearing at the rate of 54 acres a minute around the world.[97]

Moreover, to add insult to injury from President Bush's perspective, the leader of the U.S. Senate delegation to Rio was to be a Democrat potential opponent in the upcoming November Presidential Elections: Senator Al Gore (D-TN). Gore took up the verbal attack on President Bush where his colleague, Senator John Kerry had left off,[98] in urging Senate passage of *Senate Concurrent Resolution 89*, as amended. Gore opined that President Bush would confront "political catastrophe if he is the only leader of a major nation in the entire world who refuses to go to the Earth summit,"[99] even though Gore was "not worried about the political damage to . . . President [Bush]"[100] since he preferred "to see somebody else elected [in the] fall."[101] Yet, according to Senator Gore:

> [I]f [President Bush] is isolated and becomes the only world leader who refuses to go to the Earth summit, that hurts our country. That embarrasses not just him as President, not just him as an individual; it would embarrass our country, and it would hurt our national interest severely because a new political consensus in the world is emerging.[102]

Senator Gore blamed President Bush's lack of leadership for the "uproar" in the status of all substantive negotiations

---

[97] *Id.*

[98] *See supra* notes 90-97 and accompanying text.

[99] 138 CONG. REC. S 4872 (daily ed. April 7, 1992) (statement of Sen. Gore), *available at* http://thomas.loc.gov.

[100] *Id.*

[101] *Id.*

[102] *Id.*

leading up to Rio.[103] Gore specifically mentioned that "[t]he biodiversity talks have broken down."[104]

In a statement close to the end of debate on *Senate Concurrent Resolution 89*, as amended, Senate Minority Leader Bob Dole (R-KS) attempted to respond to the Democrats attack on President Bush's negotiating stance leading up to Rio. The Dole statement is worthy of extensive quotation since it probably represents an accurate assessment of many Republican Senators' general concerns about the wisdom of extensive international environmental diplomacy efforts by the United States, in general, and the advisability, in particular, of ratifying the Biological Diversity Convention. Senator Dole remarked:

> Environmental laws and regulations governing nearly every aspect of life in America are stronger in the United States than they are in any other country in the world. We have laws on air emissions, water discharges, filling and dredging wetlands and waterways, disposal of every type of waste from common household garbage to toxic chemicals to radioactive waste. We regulate almost to the absurd, demanding asbestos which has been safely sealed in place instead be disrupted and removed at enormous cost. We demand toxic waste be removed from leaking dump sites and transferred to exotic space age dumps which also leak, a move that generates huge profits to lawyers and little, if any, benefit to the environment.
>
> Unfortunately, those who have criticized the President of the United States . . . fail to tell us the basic position of the two sides in the UNCED negotiations. The United States wants to have a cooperative agreement whereby all nations of the world commit themselves to undertake the same type of aggressive environmental controls that the United States has taken. Conversely, the Third World has viewed these negotiations as a cash cow. For a price, they have said, we might be able to interest them in being concerned about the environment.
>
> So . . . let us ask the American people. Let us ask American taxpayer which we failed to do around here almost every day.

---

[103] *Id.*
[104] *Id.*

> Ask the American taxpayer the real question: Do you favor spending hundreds of millions, if not billions, of your tax dollars to foreign countries to try to interest them in the environment? Or, do you favor taking a tough stand, demand that all nations follow the lead of the United States in cleaning the air, the water, protecting forests and species, and eliminating chemicals . . . ?
>
> I am quite certain when the American people understand the facts — not the speeches, not the rhetoric, not the criticism of President Bush — when they are told the truth, they will reject the sleight of hand to take money out of the hands of the needy in this country and use it as bribes to foreign governments.
>
> I am also quite certain the American people would instead agree that President Bush, that all nations should voluntarily protect the fragile environment of this globe which is, as best as I can determine, the only choice we have in choosing a place for mankind to live.
>
> In closing, I would like to praise President Bush for his courage in taking the sensible position he has. He could have chosen the politically expedient route that many of my colleagues talked about . . . of hiding behind the skirt of environmental protection and allow this Nation to be blackmailed.[105]

The Senate, in a procedural maneuver, unanimously consented to the use of the previously-passed, although substantively different, *House Concurrent Resolution 292*[106] on the Rio Conference, as the Senate's legislative moniker and to substitute the entire text of *Senate Concurrent Resolution 89*, as amended, for the pending *House Concurrent Resolution.*[107] Thereafter, the Senate passed *House Concurrent Resolution 292,* with the substituted Senate text, by a vote of 87 to 11, with many Republican Senators joining Democrat Senators voting "yea."[108] All eleven "nay" votes were cast by Republican Senators.[109]

---

[105] 138 CONG. REC. S 4896 (daily ed. April 7, 1992) (statement of Sen. Dole), *available at* http://thomas.loc.gov.

[106] *See* 138 CONG. REC. S 4897 (daily ed. April 7, 1992), *available at* http://thomas.loc.gov.

[107] *Id.*

[108] *Id.*

[109] *Id.* Among this group, key Republican Senators who voted "nay" were Senators

During the runup to the Earth Summit in June of 1992, and its immediate aftermath, several members of Congress took to the floor of their respective chambers, or inserted remarks in the *Congressional Record,* to express to their colleagues information and arguments about the appropriate approach of the United States in responding to the Biological Diversity Convention. Senator Tim Wirth (D-CO) inserted remarks entitled *Chemical Prospecting Earth's Biological Diversity* into the Senate Record on March 26th.[110] Senator Wirth's remarks began by asserting "in recent years we have heard much from our scientists and other experts about the dire need to protect biodiversity, and about the chilling rate of species extinction now underway — 1,000 times the normal rate."[111] While noting that "[t]here are, of course, several valid reasons to protect the diversity of God's creation" including ethical and aesthetic arguments,[112] Senator Wirth focused his comments on what he called "the economic potential inherent in the protection of biodiversity;"[113] that, in his words, "there is money to be made in the chemical prospecting of Mother Nature's rich diversity of plant and animal life."[114] Wirth sketched the outline of his economic biodiversity rationale in the following words:

> Simply put, chemical prospecting is the search for new chemical compounds that can become life-saving drugs and other products that benefit humankind. Animal and plant life is a rich storehouse of such chemicals. The happy marriage between recent advances in biotechnology, which allow efficient testing of thousands of natural substances, and the tremendous biodiversity found but imperiled [species] on this planet has already added tens of billions of dollars to our economy. Sophisticated drugs whose origin is found in the great biologic library are already relieving human suffering around the world. It took millions of years of evolution to create this genetic encyclopedia and it is just beginning to be explored. It is also threatened as never before.

Bob Dole (R-KS), Phil Gramm (R-TX), Jesse Helms (R-NC), Trent Lott (R-MS), Alan Simpson (R-WY), and Malcolm Wallop (R-MT).

[110] 138 CONG. REC. S 4401 (daily ed. Mar. 26, 1992) (extension of remarks by Sen. Wirth), *available at* http://thomas.loc.gov.

[111] *Id.*

[112] *Id.*

[113] *Id.*

[114] *Id.*

> This situation presents both urgency and opportunity. Many of the world's most endangered species and ecosystems are found in the poorest nations, whose thrust for economic advancement drives unsustainable development practices. Huge areas of rainforest containing the highest species concentrations found anywhere are slashed and burned in pursuit of income. In these areas, economic development and environmental protection clash in a mutually destructive cycle of resource exploitation. In the end, both local economies and nature's bounty are impoverished.
>
> What is needed then, is a harmonization of development and environmental stewardship. Chemical prospecting offers an exciting link between conservation and economic advancement by vesting the caretakers of the world's genetic resources with an interest in its sustainable development. Chemical prospecting provides a path toward the peaceful coexistence between the needs of humankind and the ecological balance on which we depend.[115]

On June 10, 1992, a few days after the conclusion of the Rio Conference, Senator Daniel Akaka (D-HI) criticized President Bush's performance on "watering down the global climate treaty binding governments to control emissions of greenhouse gases"[116] and in "refus[ing] to sign the compact to protect

---

[115] *Id.* Senator Wirth inserted several articles into the record to substantiate his argument: Andrew Pollack, *Drug Industry Going Back to Nature,* N.Y. TIMES, Mar. 5, 1992; Thomas E. Lovejoy, *Earth's Living Library: Check It Out;* Thomas Eisner, *Chemical Prospecting,* 138 CONG. REC. S 4400-403 (daily ed. Mar. 26, 1992) (insertion in record by Sen. Wirth), *available at* http://thomas.loc.gov.

[116] 138 CONG. REC. S 7783 (daily ed. June 10, 1992) (statement by Sen. Akaka), *available at* http://thomas.loc.gov. Senator Akaka quipped, in this regard: "Among the world's industrialized nations, only the United States refused to commit itself to stabilizing emissions of carbon dioxide at 1990 levels by the year 2000. Brandishing the threat that President Bush might boycott the summit, administration negotiators strong-armed other nations in limiting the climate treaty to voluntary emission reduction goals. Our country is the source of nearly one-quarter of the world's carbon dioxide emissions, and if the United States will not agree to anything other than voluntary goals, no one should expect anything more than voluntary results." *Id.* For a totally different perspective on the Bush negotiating strategy on the global warming treaty at Rio, *see* Rose Gutfeld, *Earth Summitry: How Bush Achieved Global Warming Pact With Modest Goals,* WALL ST. J., May 27, 1992, *reproduced* in 138 CONG. REC. S 7457-58 (daily ed. June 3, 1992) (insertion by Sen. Wirth), *available at* http://thomas.loc.gov. "How did the White House manage to set the global-warming agenda for the [Rio] conference on its own terms? The key, according to people familiar with the talks, was a clever bargaining ploy devised by an influential but little-known State Department official [Robert Zoellick, an Undersecretary of State in conjunction with Clayton Yeutter, the Bush White House's domestic policy czar]. The heart of his strategy: to use the

plants, animals and natural resources — known as the biodiversity treaty — because of [President Bush's] desire to shield the U.S. biotechnology industry from competition."[117] Senator Akaka claimed that "[w]hen you examine his record at Rio de Janeiro, President Bush looks more like [former Secretary of Interior under Ronald Reagan] James Watt than the environment President he claims to be"[118] since Bush's "message is clear: 'Do as I say, not as I do.'"[119] Akaka went on to provide a Hawaiian perspective on the failure of President Bush to sign the Biological Diversity Convention by remarking:

> The United States failure to sign the biodiversity convention is an especially disturbing development. In rejecting this treaty, the Bush administration professed a desire to preserve economic development opportunities for U.S. industry. What the administration fails to recognize is that there can be no economic development without biological diversity.
>
> Experts on biodiversity estimate that as much as 20 percent of the Earth's plant and animal species may disappear in the decades ahead. Given that natural organisms are the source of nearly three-quarters of all medicines, the loss of biological diversity has grave implications for the quality of life on Earth. When these species disappear so do the cures for the ills that plague us. As my colleague Senator [George] Mitchell [D-ME] warned in his book "World on Fire", "When we let species become extinct, we foreordain our own extinction."
>
> Nowhere is the significance of the biological diversity convention more apparent than in Hawaii. Hawaii is famed for its unique natural heritage. No other place on Earth has a higher percentage of unique plant and animal species. Nearly 100 percent of Hawaii's invertebrate species, and 90 percent of its birds and flowering plants are endemic, making Hawaii home to over 10,000 life forms found nowhere else on the globe.

---

threat that Mr. Bush would boycott the summit to wrangle an agreement that wouldn't lock the U.S. into costly requirements that could threaten economic growth." *Id.*

[117] 138 CONG. REC. S 7783 (daily ed. June 10, 1992) (statement by Sen. Akaka), *available at* http://thomas.loc.gov.

[118] *Id.*

[119] *Id.*

> The availability of . . . science to contribute to human welfare rests in large part on the knowledge waiting to be discovered in the tropical forests. Yet Hawaii has already lost most of its original tropical forests, half of its original bird species, and an untold number of other wildlife and plants.[120]

On June 17, 1992 Senator Don Nickles (R-OK) rose on the Senate floor to offer support for President Bush's "decision that it is in the best interests of the United States that the United States not be a signatory to the Biological Diversity Convention."[121] First, Senator Nickles attempted to refute those who criticized the decision by President Bush not to sign the Biological Diversity Convention as evidence of a lack of leadership in world environmental issues[122] by noting that the administration had signed "the Framework Convention on Climate Change, the other multilateral treaty open for signature at the Rio Conference . . ."[123] Second, Nickles contended that "[t]he truth is, the United States strongly supports the principle of maintaining biological diversity, both domestically and internationally."[124] Third, Senator Nickles identified the treatment of intellectual property rights[125] under the Biodiversity Convention, as the chief reason the United States chose not to sign that treaty. His commentary on this point is instructive:

> These problematic [intellectual property] provisions are almost side issues to the protection of endangered species and habitat. However, these problematic provisions are the heart of the agenda of the developing nations at Rio. They want our money with only vague accountability and they want our technology for free, without any understanding of the effectiveness of private sector investment to assist in meeting biodiversity goals. These same two issues, wanting to have funding without strings and technology without royalties, have also been major stumbling blocks in the Agenda 21 provisions.

---

[120] *Id.*

[121] 138 CONG. REC. S 8375 (daily ed. June 17, 1992) (statement of Sen. Nickles), *available at* http://thomas.loc.gov.

[122] *Id.*

[123] *Id.*

[124] *Id.* Senator Nickles noted that: "In fact, the United States was an early proponent of an international convention to protect biodiversity in developing countries — yet another environmental area in which the United States has been a world leader in terms of domestic action." *Id.*

[125] *Id.*

> Agenda 21 is nonbinding environmental action plan. The Biological Diversity Convention, however, is an enforceable treaty.
>
> The Biological Diversity Treaty would essentially coerce the transfer of technology by the United States and other developed countries to the developing countries. Article 16(2) of the treaty would obligate the United States to transfer not only the commercially available products of technology, but also the technology itself to developing countries, without regard to intellectual property rights.
>
> I remind my colleagues that the United States has been pressing for appropriate international recognition of intellectual property rights for the past 5 years in the Uruguay round of the GATT negotiations. This very issue — treatment of intellectual property rights — has been one of the two biggest hurdles for agreement during the GATT negotiations. Why should we throw away our basic position of 5 years on this critical issue just to say we will sign this particular environmental treaty?[126]

---

[126] *Id.* The United States signed Agenda 21 — the "non-binding action plan" referred to in Senate Nickles remarks in June of 1992. *See* Agenda 21: The U.N. Program of Action from Rio, U.N. Sales No. E.93.1-11 (1993). Some of the chapters of Agenda 21 that deal with aspirational biological diversity protection include Chapters 15 ("conservation of biological diversity"), and 16 ("environmentally sound management of biotechnology"). For a discussion of some specific biodiversity protection provisions, at the habitat level, *see* Robert F. Blomquist, *Virtual Borders? Some Legal-Geo-Philosophical Musings on Three Globally Significant Fragile Ecosystems Under United Nations' Agenda 21,* 45 CLEV. ST. L. REV. 23 (1997). On the debate over intellectual property protection and biodiversity, *see generally* Jim Chen, *Diversity and Deadlock: Transcending the Conventional Wisdom on the Relationship Between Biological Diversity and Intellectual Property,* 31 ENVTL. L. REP. (ENVTL. L. INST.) 10625 (June 2001); GRAHAM DUTFIELD, INTELLECTUAL PROPERTY RIGHTS, TRADE AND BIODIVERSITY (Earthscan 2000); Timothy Swanson & Timo Göschl, *Property Rights Issues Involving Plant Genetic Resources: Implications of Ownership for Economic Efficiency,* 32 ECOLOGICAL ECON. 75 (2000); KERRY TEN KATE & SARAH A. LAIRD, THE COMMERCIAL USE OF BIODIVERSITY (Island Press 1999); Mahadev G. Bhat, *On Biodiversity Access, Intellectual Property Rights, and Conservation,* 29 ECOLOGICAL ECON. 391 (1999); G. Utkarsh et al., *Intellectual Property Rights on Biological Resources: Benefiting from Biodiversity* and People's Knowledge, 77 CURRENT SCI. 1418 (1999); Charles R. McManus, *The Interface Between International Intellectual Property and Environmental Protection: Biodiversity and Biotechnology,* 76 WASH. U. L. W. 255 (1998); Rosemary J. Coombe, *Intellectual Property, Human Rights & Sovereignty: New Dilemmas in International Law Posed by the Recognition of Indigenous Knowledge and the Conversation of Biodiversity,* 6 IND. J. GLOBAL LEGAL STUD. 59 (1998); Antonio G.M. LaVina, *Intellectual Property Rights and Indigenous Knowledge of Biodiversity in Asia,* 2 ASIA PAC. J. ENV'T. L. 227 (1997).

Fourth, Senator Nickles identified adverse impacts on international trading opportunities of the U.S. biotechnology industry as another justification for President Bush's decision not to sign the CBD, observing that "[u]nder the Biological Diversity Convention, the U.S. biotechnology industry would be harmed in the same way as any U.S. industry trying to provide products to the developing countries" in that "the proprietary process information would have to be given free to the developing country along with the product."[127] Moreover, Senator Nickles perceived another trade-related problem with the Biological Diversity Convention: "the biotechnology industry has been singled out for special regulation"[128] in that "[u]nder the guise of concern for the safety of biotechnology products, the convention would authorize preimport approval of products produced by the United States using its biotechnology capabilities."[129] Therefore, according to Senator Nickles, "[s]igning this treaty would be handing the rest of the world a new trade barrier for U.S. high-technology products"[130] and "[f]or those who have been frustrated by the European farm subsidy issue, this convention's open invitation to reject United States agricultural products should be of real concern."[131] At this point in his remarks, Senator Nickles received permission to insert two letters that had been sent to President Bush in opposition to the United States signing the CBD: one letter was from the Pharmaceutical Manufacturers Association;[132] the other letter

---

[127] 138 CONG. REC. S 8375 (daily ed. June 17, 1992) (statement of Sen. Nickles), *available at* http://thomas.loc.gov. Nickles opined: "That is not right. That is wrong." *Id.*

[128] *Id.*

[129] *Id.*

[130] *Id.*

[131] *Id.*

[132] *Id.* According to this June 9, 1992 letter to President Bush:

> Patent protection is the foundation of the research-based pharmaceutical industry. Without such protection, there simply would be no pharmaceutical industry — and no new drugs to cure disease, ease suffering and prolong life. Unlike many U.S. industries, the U.S. pharmaceutical industry continues to increase its investment in research and development. This year [1992], the industry will spend almost $11 billion on R&D, thirteen and one-half percent more than [1991].
>
> * * *
>
> Our industry, according to the March 9, 1992 issue of Fortune Magazine is America's most internationally competitive industry. None of this would be conceivable without the assurance of strong patent protection. As it is, our companies

was from the Industrial Biotechnology Association.[133] Fifth, Senator Nickles pointed to the financing provisions[134] of the Convention as being problematic, describing these provisions to his colleagues as "yet another attempt by the developing world to obligate the developed world, especially the United States, to pay them to meet environmental goals without any strings attached,"[135] largely, in Nickles' view, through the power the treaty gave developing nations in managing the Global Environment Facility (GEF),[136] and Article 20's impact on the biodiversity protection responsibilities of developed nations vis-à-vis developing nations.[137] In concluding his remarks in opposition to the CBD, Senator Nickles stated:

> continue to lose billions of dollars a year in sales to patent pirates who operate in countries that lack adequate patent protection.
>
> The proposed Convention on Biological Diversity would undermine the great progress that your Administration has made in encouraging other countries — most recently and notably Mexico and China — to strengthen their patent laws. The unclear language relating to "technology transfer" and equitable sharing appear to be code words for compulsory licensing and other forms of property acquisition. Your sensitivity to these matters is most gratifying.
>
> Our industry considers your continuing strong support for protection of both the environment and intellectual property rights as an indication of your commitment to ensuring American competitiveness in the international arena.

Id.

[133] *Id.* at 8376. According to this June 8, 1992 letter to President Bush:

> The biotechnology industry would support the treaty if its provisions were limited to conservation of biological diversity. Unfortunately, the treaty also contains provisions permitting developing countries to disregard the patent rights of biotechnology companies and mandates that companies transfer their inventions to developing countries on concessional, preferential, and most favorable terms. It would then allow both government institutions and the private sector of developing countries to market U.S.-developed biotechnology products in competition with companies that developed them.
>
> * * *
>
> IBA represents 136 companies engaged in biotechnology research and development. Collectively our members represent more than 80% of all private biotechnology research investment in the U.S. Thank you for acting to protect the technology and the jobs thereby affected. Your stand is one of political courage and foresight.

Id.

[134] *Id.*

[135] *Id.*

[136] *Id.* According to Nickles, "[u]nder the Biological Diversity Convention, the signatory nations would manage the funds, presumably by majority vote" and "[t]he majority consists of developing countries, not developed countries like the United States." *Id.*

[137] *Id.* According to Senator Nickles, "the language of article 20 of the convention conditions any responsibilities of the developing world to implement their commitments under the convention only after the industrialized nations first effectively [meet] their financial resource commitments." *Id.* "In other words", Nickles noted, "under the convention, the developing world does not have to act at all to protect biological diver-

> In my view, the Biological Diversity Convention is not an acceptable treaty, and would not withstand Senate scrutiny if it were signed by the President. One of the burdens of leadership is standing alone, of keeping your wits about you when all those around you are losing theirs.
>
> Looking behind the simple descriptions of this convention, compels this Senator to conclude that the President is exactly correct in refusing to sign it.[138]

At the conclusion of his remarks, Senator Nickles cited, and entered into the record, two contemporaneous newspaper editorials which supported President Bush's decision not to sign the Convention on Biological Diversity: one editorial, from the *New York Times* was entitled "Not-So-Bad Boy of Biodiversity;"[139] the other editorial, from *USA Today* was entitled "Bush is Right Not to Sign Environmental Treaty."[140]

---

sity until the industrialized countries have given them funds without oversight and technology without royalties." *Id.* Senator Nickles argued, in this regard, that "[t]he goal of the United States is, and should be, to encourage economic self-sufficiency and sustainable growth rather than prolong[ing] the tragic financial dependency of the developing countries embodied in this convention." *Id.*

[138] *Id.*

[139] *Id.* (citing Editorial, *Not-So-Bad Boy of Biodiversity,* N.Y TIMES, June 5, 1992). According to the editorial:

> Critics are quick to cast the United States again as an environmental bad boy for refusing to sign the biodiversity treaty today at the world environmental summit meeting in Rio de Janeiro. But the Bush Administration should not be judged too harshly. The treaty will start a valuable conservation effort but it contains subsidiary clauses that could erode important American interests going far beyond saving endangered species.
>
> The best course now for the U.S. is to warmly embrace the goals and most provisions of the treaty — and find ways to work around the nettlesome clauses. There will always be time to sign the treaty later if U.S. concerns prove exaggerated.
>
> The need for a treaty is clear. The world's enormous store of life — some 10 million or more species of insects, microbes, plants, birds, animals and marine life — is shrinking. Species are disappearing at an unknown but apparently very high rate, largely because their habitats are being obliterated for development. Some people estimate that a quarter of the existing species may be wiped out over the next half-century. This would mean losing genetic stocks that might someday serve as the basis for better crops, medicines or other products.
>
> The treaty that has emerged after arduous negotiations will at least begin to mitigate the mindless destruction. True, it sets no firm requirements for saving species and guarantees no level of funds. But it commits the signatories to develop national programs to conserve diversity, monitor species and establish protected areas.
>
> What stuck in the craw of the Bush Administration were subsidiary clauses, especially those on financing. The treaty has been read by a few to give poor countries the right to determine how much money the rich countries must contribute.

More worrisome is that the money will be allocated to conservation projects through a financing mechanism controlled by the parties to the treaty, mostly the poor countries. Donor countries would have little control over how the money was spent, a sharp break with usual practice.

There are also clauses that the Administration believes threaten the protection of patents and intellectual property rights, others imply that organisms modified by biotechnology need special regulation to insure safety, the very opposite of the Administration's approach.

All these obstacles can be surmounted. The Administration could submit memorandums setting forth its understanding of somewhat ambiguous language on patents and biotechnology. And it could wait until the financing mechanism is chosen before concluding that the treaty is inadequate. President Bush badly needs to make his commitment to environmental issues more credible. Even if he says 'no' now in Rio, he can also keep the door open to affirming this important conservation effort.

Editorial, *Not-So-Bad Boy of Biodiversity,* N.Y TIMES, June 5, 1992

[140] *Id.* at 8377 (citing Editorial, *Bush is Right Not to Sign Environmental Treaty,* USA TODAY, June 9, 1992). According to the editorial:

Biodiversity treaty may sound good, but it demands too much of the USA and too little of others.

President Bush may be all alone this week in refusing to sign an Earth Summit treaty aimed at protecting endangered wildlife species.

He also happens to be right.

The so-called biodiversity treaty is long on good intentions. It offers underdeveloped countries economic aid in exchange for limiting the environmental damage they cause. It would protect dying species that might someday provide new medicines and foods.

But the price demanded of the USA is too high, and the promise of meaningful results is too low. The treaty would:

Deny the USA and other industrial nations control of the dollars they donate to conservation.

If the USA is going to spend money on conservation, it should be able to assure that the money is spent effectively.

Unwisely and unnecessarily force the emerging U.S. biotechnology industry — the undisputed world leader — to share confidential information and property rights with other countries.

Lead to international regulation of the genetic-engineering industry, impeding progress and endangering U.S. leadership in the field.

The treaty does all this without setting firm requirements for saving species.

Too much sacrifice; too few results. Bush should resist pressure from home and abroad to sign the treaty and work for changes.

Other developed countries pressing Bush to sign have less at stake. In fact, some could gain by opening up U.S. biotech efforts.

They also make weak arguments. Britain and Japan, for instance, say they share some of the same concerns but plan to sign anyway. If they have doubts, they should work for change.

President Bush should take the lead in advancing programs to prevent species from dying out. He should be willing to spend U.S. money and expertise to help avert environmental devastation.

But he should keep his name off this document until rightful U.S. concerns are addressed.

Editorial, *Bush is Right Not to Sign Environmental Treaty,* USA TODAY, June 9, 1992

On June 24, 1992 Congressman Lee Hamilton (D-IN) inserted a report of his attendance at the Rio Earth Summit into the *Congressional Record.*[141] While implicitly supporting President Bush's decision not to sign the CBD by observing that "[t]he President is correct when he says that the U.S. has done much to clean up its air and water and protect endangered species"[142] and that "[a]t the summit the U.S. . . . made the legitimate argument that environmental treaties should not give the poor countries the right to determine how much money industrialized nations should contribute to environmental protection and how assistance should be distributed,"[143] Congressman Hamilton provided an overall negative assessment of the Bush Administration's lack of international leadership at Rio by claiming:

> Yet, the Bush Administration's foot-dragging in Rio allowed other major industrial countries to take the lead and to upstage it with stronger environmental commitments. The U.S. found itself isolated and forfeited its leadership role. Europe and Japan view protecting the environment as a challenge that will over time strengthen their economies, create jobs and sustain valuable resources. The U.S. tends to view the environmental protection measures as a threat to jobs.
>
> The Rio conference showed that no other country is willing to take aggressive steps without top-level U.S. participation. It showed that international action on the environment is likely to succeed when the U.S. strongly backs it but founder when we oppose it or sit on the sidelines. Yet, the consequences of abdicating leadership on an international issue is that one loses influence over decision-making. If we fail to exercise vigorous leadership, others will make decisions for us, on the environment and on other issues of vital interest to us.[144]

On July 31, 1992, Senator Tim Wirth (D-CO) participated in Presidential politics by coming to the aid of the Democrat Vice Presidential nominee, Al Gore.[145] Senator Wirth con-

---

[141] 138 CONG. REC. E 1966 (daily ed. June 24, 1992) (statement of Rep. Hamilton), *available at* http://thomas.loc.gov.

[142] *Id.* at E 1967.

[143] *Id.*

[144] *Id.*

[145] 138 CONG. REC. S 11048 (daily ed. July 30, 1992) (statement by Sen. Wirth), *available at* http://thomas.loc.gov.

trasted what he viewed as the positive role of Senator Gore at the Rio Summit, with the counterproductive role of the Bush Administration. In making this comparison, Senator Wirth relied on a July 15, 1992 Memorandum to EPA Employees by the Environmental Protection Agency's Administrator, William Reilly,[146] which he incorporated into the *Congressional Record*.[147] The Reilly Memorandum described his participation at Rio as "a bungee jump" where his line was cut by a political operative in the Bush White House.[148] Reilly's analysis of America's involvement in the CBD was as follows:

> The United States decision not to sign [the Convention] was the subject of intense controversy and criticism. In public relations terms we never recovered from it. The decision was not based on opposition to the conservation elements of the agreement, which we support, but our financial and legal concerns related to a proposed regime to single out as especially unsafe biotechnology, and language suggesting that intellectual property rights are subordinate to other rights recognized in the Treaty. The financing provisions, leaving authority with the donee, are also unsound. The U.S. early on supported the need for a biodiversity convention so it was a perverse twist that we alone rejected it. In his speech to the Rio Conference, President Bush announced that the U.S. would exceed the conservation goals of the Convention on Biological Diversity . . . Incidentally, I have begun to hear . . . some claims that the biotechnology industry did not have fundamental objections to the Convention. Certainly elements of that industry convinced the State Department, Vice-President's office and White House that the Convention did threaten them; no companies communicated any contrary message, even privately.[149]

---

[146] *Id.* at 11050 (citing *Memorandum from William Reilly to all EPA Employees Re: Reflections on the Earth Summit*).

[147] *Id.*

[148] *Id.*

[149] *Id.* Reilly mentioned that his views on developing countries' responsibilities were impacted by the U.S. position on biodiversity. Specifically, Reilly noted:
One key question that remains . . . is why so little [was] asked of the developing countries? The lessons of Eastern Europe — the importance of democracy and free markets — are clear. The lessons of Mexico's experience are also clear. In Mexico, a liberalized economy open to trade and investment has resulted in more than $25 billion in new inflows of capital over the past few years, an amount that dwarfs any conceivable aid to which they might have aspired. And now Mexico is spending one percent of their GNP on the environment. We are in a new era where trade, not aid, will provide needed

> Moreover, Administrator Reilly posed another key question in his memorandum: "[W]hy did the United States play such a low-key defensive game in preparing for Rio? We assigned a low priority to the negotiations of the biodiversity treaty, were slow to engage the climate issue, were last to commit our President to attend Rio. We put our delegation together late and we committed few resources. No doubt this contributed to the negative feelings toward the United States."

On October 8, 1992, — a month before the November Presidential Election — Senator Al Gore (D-TN) inserted a statement in the *Congressional Record* that was critical of the Bush Administration's actions in Rio; particular criticism was targeted at the failure of President Bush to sign the CBD.[150] That same day, Senator Claiborne Pell (D-RI), as Chairman of the Senate Foreign Relations Committee, gave a report to his colleagues on the record of the Committee during the 102nd Congress;[151] Pell observed that "[p]rotecting the global environment is certain to be a major priority of the new administration and the new Congress"[152] and that he "hoped that we can strengthen international environmental law by signing and ratifying a biological diversity agreement,"[153] among other objectives.

3. Debating Ratification, 1993-94

With the election of William Jefferson Clinton as President and Al Gore as Vice President in November 1992, a new Democrat administration moved into the White House for the first time in twelve years.[154] President Clinton, reversing the course of his predecessor, signed the CBD on June 4, 1993.[155] Antici-

---

resources. I was virtually alone in pointing to these realities but because of the U.S. position on biodiversity I simply was not heard.

[150] 138 CONG. REC. S 18236 (daily ed. Oct. 8, 1992) (statement of Sen. Gore), *available at* http://thomas.loc.gov.

[151] 138 CONG. REC. S17724 (daily ed. Oct. 8, 1992) (statement of Sen. Pell), *available at* http://thomas.loc.gov.

[152] *Id.*

[153] *Id.*

[154] BARONE & UJIFUSA, *supra* note 6, at 47-51 (discussing Clinton elections of 1992 and 1996).

[155] S. REP. NO. 104-21 (1995), *available at* http://thomas.loc.gov.

pating Clinton's signature, a flurry of bills were introduced at the outset of the 103rd Congress to bring the United States into compliance with the Convention.[156] On November 19, 1993 President Clinton transmitted the CBD to the Senate,[157] with an accompanying message[158] which stressed the negotiating history of the treaty,[159] the purposes and objectives of the CBD,[160] the role of economic incentives under the treaty,[161] and

---

[156] *See, e.g.*, HR 200, 103rd Cong. (1993), *available at* http://thomas.loc.gov; HR 869, 103rd Cong. (1993), *available at* http://thomas.loc.gov. In remarks inserted into the record by the sponsor of HR 869, Rep. Robert G. Torricelli (D-NJ), said that he "hope[d] this legislation will help pave the way for the signing of the Convention on Biological Diversity by the U.S. Government." 139 CONG. REC. E 286 (daily ed. Feb. 4, 1993) (statement by Rep. Torricelli), *available at* http://thomas.loc.gov.

[157] Convention on Biological Diversity, June 4, 1993, S. TREATY DOC. NO. 103-20 (1993).

[158] 139 CONG. REC. S 16572 (daily ed. Nov. 19, 1993), *available at* http://thomas.loc.gov.

[159] *Id.* According to President Clinton's Message: "The final text of the Convention was adopted in Nairobi by the Intergovernmental Negotiating Committee for a Convention on Biological Diversity (INC) on May 22, 1992. The INC was preceded by three technical meetings of an Ad Hoc Working Group of Experts on Biological Diversity and two meetings of an Ad Hoc Working Group of Legal and Technical Experts. Five sessions of the INC were held, from June 1991 to May 1992. The Convention was opened for signature at the United Nations Conference on Environment and Development in Rio de Janeiro on June 5, 1992." *Id.*

[160] *Id.* According to President Clinton's Message:

> The Convention is a comprehensive agreement, addressing the many facets of biological diversity. It will play a major role in stemming the loss of the earth's species, their habitats, and ecosystems through the Convention's obligations to conserve biodiversity and sustainably use its components as well as its components as well as its provisions that facilitate access to genetic resources and access to and transfer of technology so crucial to long-term sustainable development of the earth's biological resources. The Convention will also create a much needed forum for focusing international activities and setting global priorities on biological diversity.
>
> The objectives of the Convention as set forth therein are the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of benefits arising out of the utilization of genetic resources. These objectives are implemented through specific provisions that address, *inter alia,* identification and monitoring, *in situ* and *ex situ* conservation, sustainable use, research and training, public education and awareness, impact assessment, access to genetic resources, access to and transfer of technology, technical and scientific cooperation, handling of biotechnology and distribution of its benefits, and financing.

Id.

[161] According to President Clinton's Message:

> Economic incentives will help all Parties achieve the environmental benefits of conservation and sustainable use of biological diversity. The Administration thus supports the concepts that benefits stemming from the use of genetic resources should flow back to those nations that act to conserve biological diversity and provide access to their genetic resources. We will strive to realize this objec-

the role of the Convention in expanding and strengthening the "tightly woven partnership of Federal, State, and private sector" biodiversity protection measures in the United States.[162]

On April 12, 1994, the Senate Foreign Relations Committee reported that it had concluded hearings on the CBD.[163] On June 29, 1994 the Committee recommended to the Senate that it ratify the CBD[164] and on July 11, 1992, the Committee reported proposed *Senate Resolution 239* which expressed the sense of the Senate regarding conditions for continued United States participation and ratification of the CBD.[165]

Proposed *Senate Resolution 239* stated that it would be "the understanding of the Government of the United States of America with respect to provisions addressing access to and transfer of technology"[166] that "(a) 'fair and most favorable terms' in Article 16(2) means terms that are voluntarily agreed

---

tive of the Convention. As recognized in the Convention, the adequate and effective production of intellectual property rights is another important economic incentive that encourages the development of innovative technologies, improving all Parties' ability to conserve and sustainably use biological resources. The Administration will therefore strongly resist any actions taken by Parties to the Convention that lead to inadequate levels of protection of intellectual property rights, and will continue to pursue a vigorous policy with respect to the adequate and effective protection of intellectual property rights in negotiation on bilateral and multilateral trade agreements. In this regard, the report of the Department of State provides a detailed statement of the Administration's position on those provisions of the Convention that relate to intellectual property rights.

Id.

[162] *Id.* According to President Clinton's Message:

Biological diversity conservation in the United States is addressed through a tightly woven partnership of Federal, State, and private sector programs in management of our lands and waters and their resident and migratory species. There are hundreds of State and Federal laws and programs and an extensive system of Federal and State wildlife refuges, marine sanctuaries, wildlife management areas, recreation areas, parks, and forests. These existing programs and authorities are considered sufficient to enable any activities necessary to effectively implement our responsibilities under the Convention. The Administration does not intend to disrupt the existing balance of Federal and State authorities through this Convention. Indeed, the Administration is committed to expanding and strengthening these relationships. We look forward to continued cooperation in conserving biological diversity and in promoting the sustainable use of its components.

Id.

[163] 140 CONG. REC. D 355 (daily ed. April 12, 1994), *available at* http://thomas.loc.gov.

[164] 140 CONG. REC. D 759 (digest ed. June 29, 1994), *available at* http://thomas.loc.gov.

[165] 140 CONG. REC. S 8484 (daily ed. July 11, 1994), *available at* http://thomas.loc.gov.

[166] *Id.*

to by all parties to the transaction"[167] and "(b) with respect to technology subject to patents and other intellectual property rights"[168] technology access and transfer under the CBD must be "consistent with the adequate and effective protection of intellectual property rights, and that Article 16(5) does not alter this obligation."[169] Proposed *Senate Resolution 239* would also have conditioned ratification of the CBD on the following understanding of the "provisions addressing the conduct and location of research based on genetic resources[170]: that "(a) Article 15(6) applies only to scientific research conducted by a Party, while Article 19(1) addresses measures taken by Parties regarding scientific research conducted by either by public or private entities,"[171] and that "(b) Article 19(1) cannot serve as a basis for any Party to unilaterally change the terms of existing agreements involving public or private U.S. entities."[172] Moreover, to provide more control of financial aid by the United States to developing countries under the CBD, *Senate Resolution 239* proposed the understanding "that, with respect to Article 20(2), the financial resources provided by developed country Parties to meet the full incremental costs to them of implementing measures"[173] that meet developing country Convention obligations and "that are agreed between a developing country Party and the institutional structure [the Global Environmental Facility] referred to in Article 21."[174]. In addition, to circumscribe the financial powers of the Conference of the Parties to the CBD, which would meet periodically to review the implementation of the Convention, *Senate Resolution 239* proposed the understandings that "with respect to Article 21(1) the 'authority' of the Conference of the Parties with respect to the financial mechanism relates to determining . . . the policy, strategy, program priorities and eligibility criteria relating to the access and utilization of such resources,"[175] and "that the decision to be taken by the Conference of the Parties under Ar-

---

[167] *Id.*
[168] *Id.*
[169] *Id.*
[170] *Id.*
[171] *Id.*
[172] *Id.*
[173] *Id.*
[174] *Id.*
[175] *Id.*

ticle 21 . . . concerns 'the amount of resources needed' by the financial mechanism,"[176] while "nothing in Article 20 or 21 authorizes the Conference of the Parties to take [sic] decisions concerning the amount, nature, frequency or size of the contributions of the Parties to the institutional structure."[177] Proposed *Senate Resolution 239* also included the following set of conditions:

> It is the sense of the Senate that, in formulating United States participation under the Convention on Biological Diversity, the President should ensure that:
>
> (1) any proposal for funding of United States participation under the Convention includes specific offsets within the United States budget to ensure the United States budgetary deficit is not increased;
>
> (2) a restructured Global Environmental Facility is the financing mechanism referred to in the Convention;
>
> (3) further decisions under the Convention provide adequate and effective protections for intellectual property and are not weaker than those provided under the General Agreement on Tariffs and Trade, under United States laws, or under the laws of other developed countries;
>
> (4) the United States has received a vote in all institutions, organizations, and mechanisms created under the Convention that is commensurate with the level of United States assessed contributions under the Convention;
>
> (5) the biological safety protocol is submitted to the Senate for its advice and consent to ratification; and
>
> (6) United States contributions under the Convention are solely dependent upon appropriations by the United States Congress is not bound by assessments of organizations created under the Convention.[178]

---

[176] *Id.*

[177] *Id.* Senate Resolution 239 also conditioned ratification of the CBD on a technical understanding dealing with reasonable compliance of military warships, and military aircraft with the Convention and on another technical legal understanding focused on Article 3 of the CBD. *Id.*

[178] 140 CONG. REC. S 8485 (daily ed. July 11, 1994), *available at* http://thomas.loc.gov.

Finally, proposed *Senate Resolution 239* conditioned ratification of the CBD on the President of the United States providing the following periodic report:

> It is the sense of the Senate that the President should provide a report one year after the date of entry into force of the Convention, and every year thereafter, to the Speaker of the House of Representatives and to the Chairman of the Committee on Foreign Relations of the Senate outlining the status of United States participation under the Convention and specifically explaining the status of the following:
>
> (1) The costs of United States participation under the Convention during the preceding one year period, and the total amount of projected expenditures under the Convention for the subsequent five year period.
>
> (2) The financing mechanism and whether it includes a restructured Global Environment Facility.
>
> (3) Whether decisions under the Convention provide adequate and effective protections for intellectual property and, specifically, whether those protections provided under the Convention are weaker than those protections —
>
> (A) provided under United States laws,
>
> (B) provided in other developed countries, or
>
> (C) provided under the Uruguay Round of the General Agreement on Tariffs and Trade.
>
> (4) Whether the United States has received a vote in all aspects of the furtherance of goals under the Convention that is commensurate with the level of United States assessed contributions under the Convention.
>
> (5) The biological safety protocol and whether it was adopted in consultation with the United States Senate and the United States biotechnology industry.[179]

While the United States Senate did not get around to debating and voting on proposed *Senate Resolution 239*[180] during

---

[179] *Id.*

[180] *See supra* notes 165-178 and accompanying text.

the summer of 1994, various discussions about international biodiversity protection policy transpired in July during Senate debate on the *Foreign Operations, Expert Financing, and Related Agencies Appropriation Act of 1995*.[181] By way of illustration, a colloquy occurred between Senator Patrick Leahy (D-VT) and Senator Carl Levin (D-MN) on the need to promote environmental quality and biological diversity in American financial aid to the New Independent States (NIS) of the former Soviet Union.[182] In this regard, Senator Leahy observed that:

> All Senators should be aware that the nations of the former Soviet Union have access to vast natural resources and unique environmental assets. As the United States and other nations of the world continue our efforts to help these countries develop sound market economies and stable democratic societies, we have an opportunity to do so in a way that protects and conserves the most vulnerable of these assets and promotes sustainable development of natural resources. Without a careful and comprehensive approach, the United States Government would be helping these nations to squander some of the most valuable assets they possess.
>
> Russia, for example, contains thousands of unique species found nowhere else in the world, many of which are highly endangered. The Russian far East alone contains highly endangered Siberian tigers, Amur leopards, several eagle and crane species, sable, lynx, wild boar, Siberian musk deer, wild ginseng and much more. Economic deregulation and rapid development projects seriously jeopardize this biodiversity.[183]

Senator Levin responded to Senator Leahy with a plug for broader goals of biodiversity protection and sustainable development, stating:

> I thank the Chairman. His Subcommittee [on appropriations] and other Members of Congress have urged the Administration to provide more timely and targeted assistance to the

---

[181] HR 4426, 103rd Cong. (1994) (enacted).

[182] 140 CONG. REC. S 9021 (daily ed. July 14, 1994) (statement by Sen. Leahy), *available at* http://thomas.loc.gov.

[183] *Id.* Senator Leahy concluded this thought by noting: "Protection of the environment and conservation of biological diversity are essential to long-term sustainable development in the NIS, just as they are throughout the world. Protecting the environment and biological diversity is necessary for long-term economic stability and public health, as well as for recreation, cultural and aesthetic values." *Id.*

> NIS. I hope he will also agree we should assure that even rapidly designed projects meet the longer term goals of protecting biodiversity and promoting environmental conservation, which are priorities of both the U.S. Government and governments of these new states.
>
> The United States Government has recently underscored the importance of preserving the Earth's diverse plant and animal species in coordination with other nations by signing the Convention on Biological Diversity. The Senate Foreign Relations Committee voted overwhelmingly on June 29, 1994 to recommend ratification of this treaty.
>
> The Clinton Administration has also reaffirmed its policy to make biodiversity conservation a high priority for all U.S. Government agencies and programs to promote sustainable development most recently in a Presidential Decision Directive last May [in 1993], and in the "Statement of the White House Office on Environmental Policy", of May 27, 1994.[184]

In debating the *Foreign Operations, Export Financing and Related Agencies Act of 1995*, however, Senator Don Nickles (R-OK) expressed concern about American financial assistance to the World Bank and the associated Global Environment Facility[185] until the GEF completed Congressionally mandated restructuring and reforms enacted in appropriations legislation during 1992-93.[186] This view was vigorously contested by Senator Patrick Leahy (D-VT), who inserted into the *Congressional Record* various letters of support for full funding of the GEF.[187] Moreover, a Republican, Senator Nancy Kassebaum (R-KS) also opposed cutting American funding to the GEF.

---

[184] *Id.* (statement by Sen. Levin). Senator Levin continued his colloquy with Senator Leahy by contending: "Foreign assistance projects that may significantly affect biodiversity or the environment should proceed only after a rapid environmental assessment, to be prepared jointly with local specialists in the region. Assessments should address wildlife and plant diversity, as well as the project's effects on soil, water quality and carbon sequestration." *Id.* at S 9022. Moreover, Senator Levin urged that: "AID [the U.S. Agency for International Development] should also assess the economic value of non-timber products, such as medicinal and edible plants, animals for fur and meat, local consumption needs and non-timber industries such as ecotourism. Where alternative forms of energy are available or feasible, U.S. assistance projects should seek to use or develop them." *Id.*

[185] 140 CONG. REC. S 9058 (daily ed. July 15, 1994) (statement by Sen. Nickles), *available at* http://thomas.loc.gov.

[186] *Id.*

[187] *Id.* at S 9058-60 (statement by Sen. Leahy).

Senator Kassebaum justified her opposition to Senator Nickles' proposal by arguing in pertinent part:

> Many, including myself, have had serious reservations about the original mandate, size, and focus of [the GEF]. Due to these concerns expressed by many, the United States did not fund the pilot program for the facility for 3 years. I now believe that many of these issues have been addressed, and addressed very effectively. After tough negotiations by both the Bush and Clinton negotiators, we now have the type of institution that we want — a transparent, accountable, cost-effective mechanism to address international environmental issues. Under intense American pressure:
>
> The scope and costs of the GEF have been reduced from $4 billion to the current size of $2 billion;
>
> The U.S. share is only $430 million over 4 years, less than the per capita contributions of other countries;
>
> The United States retains a great amount of control over the GEF's policies and projects; and
>
> The focus of the GEF has been limited to projects with global environmental benefits, such as biodiversity.
>
> I now believe that the GEF can become an important part of U.S. efforts to promote international cooperation on the environment. The United States won some major concessions in forming the GEF. If we want to keep this institution on the right track, it is important that our participation be comprehensive and aggressive to help shape the agenda and make GEF a constructive, focused, effective and coordinated institution addressing global environmental problems.[188]

During September and October of 1994, the United States Senate engaged in extensive informal debates on the merits of ratifying the CBD, yet, because of opposition to a unanimous consent order to bring up the Convention for formal consideration and a Senate ratification vote, the CBD languished, unratified, at the close of the 103rd Congress. This informal period of debate opened on September 13, 1994 when Senator Paul Simon (D-IL) inserted into the *Congressional Record* an

---

[188] *Id.* at 9060-61 (statement by Sen. Kassebaum).

editorial from the *St. Louis Post-Dispatch* entitled "Senate Inaction Threatens Biodiversity Treaty."[189]

---

[189] 140 CONG. REC. S 12825 (daily ed. Sep. 13, 1994) (statement by Sen. Simon) (inserting Howard G. Buffet, *Senate Inaction Threatens Biodiversity Treaty,* ST. LOUIS POST-DISP., Aug. 31, 1994), *available at* http://thomas.loc.gov. The editorial insert argued as follows:

> A powerful, far-reaching agricultural issue was overlooked by the U.S. Senate, an issue that affects all humankind — the conservation and sustainable use of the world's animals, plants and ecosystems. The world is getting smaller and needs a global effort to preserve its biological diversity; unfortunately, due to inaction, the United States will not participate fully in this effort.
>
> * * *
>
> Decisions affecting the rules of procedure and biosafety protocol will be made without our input or influence. The Senate may have left Washington without acting on this important issue, but make no mistake about it — the rest of the world will not stand still because we failed to act. This conference will move forward, and our decision not to be at the table reflects poorly on our commitment to future generations.
>
> Every year, the U.S. government spends billions of dollars to idle fertile cropland in an effort to support prices. At the same time, countless developing nations subsidize intensive production on fragile soils. The resources necessary to produce food for the world's nearly 6 billion people are literally eroding daily, even in countries with strong conservation traditions.
>
> We live in a world where fewer than 20 plant species produce 90 percent of the food supply, and we live in a country where more than 99 percent of commercial crop acres are planted with plant species introduced from foreign countries. We are dependent on our ability to constantly adapt varieties of plants and animals to overcome disease and enhance yields necessary to fee our rapidly expanding population. As a country, we rely on the world's supply of diverse plant and animal genetic material. World interdependence has never been more evident than in the struggle to produce food.
>
> Given our country's position among world producers, does U.S. agriculture have anything to fear [of] the Convention on Biological Diversity? I think the answer is clearly no. Under the convention, we maintain sovereign control over our natural resources and are not subject to binding dispute resolution procedures. The convention provides a framework for developing stores of strategic genetic resources here and abroad.
>
> The foreign germ plasma that boosted the soybean from a green manure crop 50 years ago to one of the nation's leading cash crops today is just one example of material that will find greater protection and development. Hybrid vigor in both plants and animals will be enhanced through increased cooperation under this agreement.
>
> Our position as the world leader in biotechnology requires that we be in a position to educate the rest of the world about the safety of new products and the economic benefits of improved varieties. We cannot influence other nations on these issues if we remain isolated and refuse to embrace this attempt to generate additional understanding.
>
> The greatest benefit to U.S. agriculture, however, might just as well accrue in the area of soil and water conservation. The convention will not force any constraining new conservation regulations on U.S. farmers. U.S. producers have for years been out front on voluntary adoption of conservation practices. Witness the extensive use of no-till farming and the reduction of nitrogen levels in row

On September 30, 1990, six Republican Senators made statements on the Senate floor in opposition to the CBD. Senator Kay Bailey Hutchison (R-TX) was first to speak.[190] Senator Hutchison objected to Senate consideration and ratification of the CBD because: (1) the Conference of the Parties of the Convention "will meet after the treaty is in force to negotiate the

---

crop systems. The benefits will come as developing nations reduce unsound farming practices and reliance on monoculture.

If the world's food supply is to keep pace with population growth, the emphasis must shift to produce more on fertile, well-managed soils and less on fragile areas. The United States stands to gain significantly under such a shift. Any move to transfer the billions being paid to idle our most fertile acres into more productive ventures will not only add to the viability of agriculture but boost the U.S. economy as well.

The economy will not be the only area affected. The consumer, when looking at availability of products, maintaining reasonable price levels and having access to more nutritious varieties, will also be effected. Whether you observe from a global perspective and are concerned with general food security or whether you localize the impact, the conclusion is the same: Biodiversity is critical to our future.

Examples can vary greatly. When you walk into a store, one out of four drug-related items that you pick off the shelf is derived from a living organism, a product of biodiversity.

We don't always think about biodiversity when eating french fries, but the connection is very real. At least 13 species of potatoes have been used in developing the varieties currently grown in the United States. And the next time you grab a handful of peanuts, remember that this popular food is largely dependent upon germ plasm from abroad.

In the 1970s, U.S. farmers were devastated by a severe disease epidemic referred to as southern leaf blight fungus. The salvation of our corn crop was found in diverse varieties resistant to the disease. It is the closet [sic] we have come to breakfast without cornflakes.

Today, the U.S. wheat crop is under siege from a foreign insect known as the Russian wheat aphid. Our only sources of resistance to this pest originated from countries of southwestern Asia and Eastern Europe.

Soybeans, one of the most important agricultural products and exports from the United States, could tremendously benefit from a stronger, disease-resistant variety. Other industries — from walnuts to grapes — depend heavily on the contribution made from biodiversity. The products affected cover every shelf in a grocery store. The consumer should look to the Senate to provide this biological diversity insurance policy.

It is quite clear that U.S. participation in the Convention on Biological Diversity offers no realistic threat to American agriculture. The real fear should come from a lack of cooperation among the world's food-producing nations as we enter the 21st century.

Id.

[190] 140 CONG. REC S 13790 (daily ed. Sep. 30, 1994) (statement by Sen. Hutchison), *available at* http://thomas.loc.gov. Senator Hutchison indicated that "on August 5, 35 Senators signed a letter to the majority leader [Senator George Mitchell (D-ME)] . . . request[ing] that the Senate delay consideration of the [Biodiversity] [T]reaty until [the] concerns [of the 35 objecting Senators] were addressed." *Id.*

details of the treaty" and this would contravene the Senate's "constitutional responsibilities to concur in treaties;"[191] (2) the CBD prohibition against reservations;[192] (3) the financing mechanism of the Convention;[193] (4) the degree to which intellectual property is protected under the CBD;[194] (5) the voting weights and procedures for member states under the Treaty;[195] and (6) the effect of the Treaty on private property rights.[196]

Senator Conrad Burns (R-MT) voiced opposition to ratification of the CBD because he was "fearful of how this [T]reaty will effect Montana's agriculture and our other natural resource industries."[197] Characterizing President Clinton's request for ratification as "yet another example of the Clinton administration's war on the West,"[198] Senator Burns opined:

> U.S. environmental laws are currently encroaching on our property rights. Provisions like the Endangered Species Act and wetlands laws are dictating what private land owners can and cannot do with their own land. This [T]reaty could give a panel outside the United States the right to dictate what our environmental laws should say. That is wrong.[199]

---

[191] *Id.*
[192] *Id.*
[193] *Id.*
[194] *Id.*
[195] *Id.*
[196] *Id.* On the issue of private property, Senator Hutchison noted:

> Private property is constitutionally protected, yet one of the draft protocols . . . proposes "an increase in the area and connectivity of habitat." It envisions buffer zones and corridors connecting habitat areas where human use will be severely limited. Are we going to agree to a treaty that will require the U.S. Government to condemn property for wildlife highways? Are we planning to pay for this property?
>
> * * *
>
> Article 10 of the [T]reaty states that we must "protect and encourage customary use of biological resources . . . that are compatible with conservation and sustainable use requirements" — as set by the [T]reaty. Whether our ranchers could continue to use public and private land for grazing could depend not just on the Secretary of the Interior's latest grazing rulemaking, but on whether grazing is considered a compatible use for conservation under the [T]reaty. This biodiversity [T]reaty could preempt the decisions of local, State, and Federal lawmakers for use of our natural resources. The details that are left for negotiation could subject every wetlands permit, building permit, waste disposal permit, and incidental taking permit to international review.

Id. at 13790-91.
[197] *Id.* at S 13791 (statement by Sen. Burns).
[198] *Id.*
[199] *Id.*

Senator Larry Craig (R-ID) objected to the ratification of the CBD because "States' rights and private property rights could be severely compromised."[200] Specifically focusing on potential impact of the Convention on his home state, Senator Craig argued:

> The Federal Government controls 63 percent of the land in the State of Idaho. Our economy and our lifestyle are sensitive to the pull and tug of environmental laws and their interpretation by Federal agencies — particularly so when it comes to the Endangered Species Act. The majority of the State's land area is encumbered by one or another species listed under the ESA. Unfortunately, the ESA has become a tool for the groups attempting to stop logging, mining, and irrigation, and to remove cattle from the public range. They have used every nuance offered by the ESA and its interpretation in the courts to raise challenges and pursue litigation at an alarming rate. At this very moment, a Federal judge is considering a request for injunction which would shut down all activities on six national forests in Idaho. Environmentalists will stop at nothing in their zeal to extend the power of the ESA, regardless of the disruption and damage which results.[201]

Senator Jesse Helms (R-NC) repeated many of the concerns about ratifying the CBD previously raised by his colleague Senator Kay Bailey Hutchison (R-TX).[202] Senator Helms, however, focused his concern on the indeterminate quality of several Convention obligations for the United States, given the framework convention characteristics of the CBD:

> This so-called treaty is scarcely more than a mere preamble, not a treaty. The real treaty — the essential nuts and bolts — is yet to be created at the conference of the parties. If the Senate precipitously ratifies this preamble falsely described as a treaty, it will have given away one of its major constitutional authorities and will have betrayed the trust of the American people.[203]

---

[200] *Id.* (statement by Sen. Craig).

[201] *Id.*

[202] *See supra* notes 190-96 and accompanying text.

[203] 140 CONG. REC. S 13792 (daily ed. Sep. 30, 1994) (statement by Sen. Helms), *available at* http://thomas.loc.gov.

Senator Don Nickles (R-OK)[204] and Senator Malcolm Wallop (R-MT)[205] raised concerns about ratifying the CBD that paralleled the previously-aired criticisms of their colleagues.

On October 4, 1994 Senator Claiborn Pell (D-RI), Chairman of the Foreign Relations Committee, vehemently defended the CBD, noting his "strong support for Senate advice and consent to ratification of the Convention on Biological Diversity;"[206] Pell contended that the original concerns which had motivated President George H.W. Bush to refrain from signing the Convention in 1992 had been addressed by the Clinton Administration in proposed interpretation documents such that the pharmaceutical and biotechnology industries had come to support the Treaty.[207] Senator Pell attached several documents to his remarks, inserting them in the *Congressional Record* after his floor statement; among these documents were the following:

(1) a letter of conditional support for CBD ratification by the Biotechnology Industry Organization;[208] (2) a letter of support for CBD ratification by the CEO of Merck & Co., "the world's largest research-intensive pharmaceutical products company;"[209] (3) a letter of conditional support for CBD ratification by the U.S. Council for International Business;[210] (4) a letter of conditional support for CBD ratification by the American Seed Trade Association;[211] (5) a letter and fact sheet of support for CBD ratification by Archer Daniels Midland Co.;[212] (6) a letter of support for CBD ratification by the American Corn Growers

---

[204] *Id.* (statement by Sen. Nickles).

[205] *Id.* at S 13793 (statement by Sen. Wallop). Senator Wallop also raised a new concern: "Article 8 of this [T]reaty mandates that parties to the [T]reaty take appropriate action and special measures to conserve biological diversity in protected areas. What is a protected area? By the Treaty's definition, it is a geographically defined area which is regulated to achieve specific conservation objectives. In other words, a protected area is whatever an anonymous Federal bureaucrat says it is." *Id.*

[206] 140 CONG. REC. S 14046 (daily ed. Oct. 4, 1994) (statement by Sen. Pell), *available at* http://thomas.loc.gov.

[207] *Id.*

[208] *Id.* at S 14047 (letter by Carl B. Feldbaum, President of BIO, dated Mar. 9, 1994 to Sen. Claiborne Pell).

[209] *Id.* at S 14048 (letter by P. Roy Vagelos, Chairman & CEO of Merck & Co., dated Mar. 23, 1994 to Sen. Claiborne Pell).

[210] *Id.* (letter from Abraham Katz, President of U.S. Council for International Business, dated April 11, 1994 to Sen. Claiborne Pell).

[211] *Id.* at S 14049 (letter from David R. Lambert, Executive Vice President of American Seed Trade Association, Inc., dated April 14, 1994 to Sen. Claiborne Pell).

[212] *Id.* at S 14049-50.

Association;[213] (7) a letter from the U.S. Department of State attaching Clinton Administration's Responses to Questions about the CBD;[214] (8) a joint letter from U.S. Secretaries of In-

---

[213] *Id.* at S 14050 (letter from Gary Goldberg, President American Corn Growers Association, dated Aug. 24, 1994 to Sen. Claiborne Pell).

[214] *Id.* at S 14050-51 (letter from Wendy R. Sherman, Assistant Secretary of State for Legislative Affairs, dated Aug. 8, 1994, to Sen. George J. Mitchell, Majority Leader with Attachment). The Attachment, prepared by the Clinton Administration, provided the following answers to key questions about the CBD:

1. Why does this convention prohibit state parties from making reservations of any of its provisions? The purpose of the 'no reservations' clause is to prevent parties from picking and choosing which provisions they are willing to accept.

2. Will the understandings set forth in the resolution of ratification protect the U.S. interpretation in the event of a dispute?

The United States is protected in the event of any dispute because the Convention does not require the United States to submit to binding dispute resolution.

The understandings are an authoritative statement of the United States' interpretation of the Convention. They will be deposited with the United States instrument of ratification and will be circulated by the United Nations to all parties.

3. Will the U.S. vote in decisions taken under this convention be commensurate with its financial contribution to the funding mechanism?

The United States objective is a rule of procedure relating to the funding mechanism that fully protect its interests as major donor. The United States has supported a rule in the rules of procedure requiring that all decisions related to the funding mechanism be made by consensus. Only as a party will we be able to block consensus on the rules of procedure; as an observer we would have no such ability.

It should also be noted that the Global Environment Facility (GEF) currently operates the financial mechanism. The GEF is responsible for actual decisions on biodiversity project funding. The instrument restructuring the GEF also gives the United States a vote commensurate with our contribution.

4. Could the eradication of 'alien species which threaten ecosystems' called for by Article 8, affect U.S. livestock policies?

No. The Convention will not affect U.S. livestock policies. Cattle (as well as poultry, sheep, and hogs) are considered under the Convention to be 'domestic species' — not alien species — and thus not subject to Article 8(h).

5. Who will interpret 'as far as possible and appropriate,' a clause which appears in several places in the convention?

This phrase is a common one in international agreements. It is a phrase that protects, not restricts, the interests of parties. In this Convention the phrase was deliberately inserted in order to give each party substantial flexibility in determining how best to implement the Convention. The United States will decide for itself how it will implement the Convention and how it interprets the phrase 'as far as possible and appropriate.'

6. Will the United States be subject to mandatory dispute settlement?

No. Dispute resolution involving the United States under the Convention is limited to non-binding conciliation. Binding dispute resolution (either through arbitration or submission of the dispute to the International Court of Justice) is optional.

The United States will not opt for binding dispute resolution under the Convention.

7. How can the Senate, in fulfilling its Constitutional responsibilities to advise and consent, review provisions and processes of the treaty that are not included in the treaty, but will be decided at the Conference of Parties?

It is common practice in international agreements to assign certain functions to the Conference of the Parties. Under treaties such as this, the rules of procedure are always decided at the first Conference of the Parties, typically after the Senate has given advice and consent. Examples include the Vienna Convention for the Protection of the Ozone Layer; the Montreal Protocol on Substances that Deplete the Ozone Layer; the UN Framework Convention on Climate Change; the Antarctic Environmental Protocol; the Cartagena Convention (Caribbean); the SPREP Convention (South Pacific); CITES; London (Dumping) Convention; Convention for a North Pacific Marine Science Organization (PICES); Convention for the Conservation of Anadromous Stocks in the North Pacific Ocean; and the Convention for the Conservation of Salmon in the North Atlantic Ocean.

In addition, the Administration stands ready to apprise, and seek the views of, the Senate Foreign Relations Committee and any other interested Members on the status of U.S. participation in the Convention whenever the Committee deems appropriate. This will enable the Senate to remain fully advised of key developments related to the Convention.

8. How will the ratification of this convention influence the Endangered Species Act, the National Environmental Policy Act and other domestic environmental legislation?

The conservation provisions of the Biodiversity Convention are broad, framework provisions. They deliberately leave to individual countries to determine how the Convention should be implemented, as far as possible and as appropriate for each country.

There are many ways that the United States could craft a statute and still remain in compliance with the conservation provisions. Thus, the Convention will not require any change to any U.S. statute, regulation, or program. No additional implementing legislation is required. At the same time, the Convention would not foreclose amendment of domestic environmental legislation.

9. Will the provisions regarding access to genetic resources (Article 15) impede United States access to germplasm and other genetic resources contained in international collection centers?

No. The United States and all other countries will continue to have open access to collections of the International Agricultural Research Centers of the Consultative Group on International Agricultural Research. The Convention should also serve to facilitate access to collections recently closed to us where some countries have been waiting for a mechanism to establish benefit sharing arrangements. Overall, the Convention will enhance access to germplasm.

10. By what means will the Conference of the Parties promote the transfer of technology to developing countries (Article 16)?

Following a dialogue with U.S. industry and others, we have developed an interpretation of the Convention and an approach for its implementation that we believe is fully consistent with U.S. public and private interests.

However, the Convention is clear: the Convention does not compel the involuntary transfer of technology to developing countries. The Convention promotes transfer of technology by encouraging voluntary, mutual agreements between the countries of origin of genetic resources and those entities that seek to commercially utilize those genetic resources.

11. Is it likely or possible that the Conference of Parties may call for a biological safety protocol that will require a license for the transfer of any biologically modified organism?

terior, Agriculture and State, attaching a Memorandum of Record;[215] (9) a *Washington Post* editorial entitled "The Biodiversity Treaty;"[216] (10) a *New York Times* editorial entitled "Biodi-

---

> One of the many reasons the U.S. biotechnology industry and the Administration believe it is essential to promptly ratify the Convention is to ensure that any biosafety protocol — whether it includes a licensing requirement or not — is scientifically based, analytically sound, and does not place undue restrictions on U.S. exports of biotechnology products. Industry believes the United States can more effectively represent its interests in this regard as a party to a biosafety protocol with unacceptable provisions, the existence of a protocol among other countries could have significant adverse impacts on U.S. industry.

Id.

[215] *Id.* at S 14051-53 (joint letter from Bruce Babbitt, Secretary of the Interior, Mike Espy, Secretary of Agriculture, and Warren Christopher, Secretary of State, dated Aug. 16, 1994, to Sen. George J. Mitchell, Majority Leader with attachment). The attached Memorandum of Record detailed benefits to American agriculture of CBD ratification; private sector involvement in enhancing biological diversity; and assessment that the CBD may not be used in place of U.S. laws; an assessment that the CBD does not prevent amendment of American environmental legislation; an assessment that the Convention does not provide for a private cause of action; an assessment that the CBD provides for no binding dispute resolution; and a statement of the effect of amendments or protocols of the CBD on the United States. *Id.* at S 14052-53.

[216] *Id.* at S 14054 (Editorial, *The Biodiversity Treaty,* WASHINGTON POST, Sept. 26, 1994). The editorial stated:

> One of the casualties of the mismanagement of this session of Congress and the current rush to adjourn could be the international Convention of Biological Diversity. It would be a major loss.
>
> The Clinton administration signed the agreement in June of 1993; the Bush administration had declined. The principal goal is to preserve the present array of living species in the world, and diversity within each species. Scientists estimate that 20 percent of currently living plant and animal species could otherwise be lost by the year 2020. Much of the loss would occur through the destruction of forests and other development in the Third World. But the rest of the world would feel the effect. The United States, for example, is heavily dependent on plant strains from abroad to maintain the vitality of basic corps— [sic] corn, soybeans, wheat — and their ability to resist disease. The same is true for other food-producing countries.
>
> The convention would seek to preserve not just the species themselves but international access to them. Safety and other standards could also be set for world trade in plant and animal strains produced through biotechnology, a subject of huge importance to U.S. industry. And because there are costs to conservation, richer countries, including the United States, would make contributions to help and induce poorer countries to conform.
>
> The Senate Foreign Relations Committee approved the convention this June by 16 to 3. All Democrats and five Republicans — Richard Lugar, Nancy Kassebaum, Hank Brown, James Jeffords and Judd Gregg — voted aye. Three other Republicans — Jesse Helms, Larry Pressler and Paul Coverdell — voted no. Some agricultural groups then expressed alarm about some aspects of the pact, as have conservative organizations that see it as an environmental wedge and threat to U.S. sovereignty. Bob Dole and 34 other Republicans wrote majority leader George Mitchell asking that floor consideration be delayed until some questions could be answered. The administration provided answers; most of the agricultural groups have since withdrawn or muted their objections, and such in-

versity Pact on the Ropes;"[217] and (11) a *Washington Post* editorial entitled "Biodiversity is Crucial to Our Future."[218]

---

fluential agribusiness organizations as the Archer Daniels Midland Co. have joined the biotechnology and pharmaceutical industries in support. But a filibuster or possibly even the threat of one could still derail the convention.

The Republicans asked, among other things, whether the convention would preempt and force changes in U.S. law. The administration says U.S. law is already well in advance of what the convention requires. It also says the convention couldn't be used by environmental groups as a basis for domestic litigation, as some critics profess to fear. Nor would there be a lack of control over the U.S. financial contribution to the undertaking.

A first conference of the parties to begin the implementation of the convention is scheduled Nov. 28. The United States will have a delegation there no matter what, but plainly in a stronger posture if the Senate voted aye. Surely the Senate can find the means to brush aside the remaining weak objections and cast that vote before it goes home.

Id.

[217] *Id.* (Editorial, *Biodiversity Pact on the Ropes,* N.Y. TIMES, Sept. 26, 1994). The editorial stated:

Chances that the Senate will ratify an international agreement aimed at preserving the world's biological diversity are diminishing as fast as the organisms the pact is designed to protect. Republican opposition and Democratic lethargy are combining to frustrate approval of the biodiversity convention, thus keeping the U.S. out of step with most of the rest of the world in the fight to save a wide range of biological species and habitats.

The convention was one of the major treaties approved at the 1992 world environmental summit meeting in Rio de Janeiro. It sets no firm requirements to save species or habitats but commits the signatories to develop national plans aimed at doing so. The treaty also seeks to promote an equitable sharing of benefits between the developing nations that possess biological resources and the industrialized nations that seek to use them for medical or agricultural purposes.

President Bush positioned the U.S. as an environmental outcast when he refused to sign the treaty because of ambiguous subsidiary clauses that seemed to threaten important American interests. Mr. Bush was right to be worried, and this page largely agreed with his reservations. One clause could be construed as giving poor countries control of the mechanism through which money would be raised and distributed for conservation projects. Other clauses looked as if they might threaten the protection of patients and intellectual property rights or impose undue restrictions, based on bogus safety concerns, on biotechnology exports.

Fortunately, these and other concerns have been addressed through clarifying interpretations issued by the Clinton Administration. President Clinton has signed the treaty and the Senate Foreign Relations Committee has strongly recommended ratification. Even some of the groups originally concerned about the treaty — notably the biotechnology and pharmaceutical industries — are now supporting prompt ratification. So are scientific and environmental organizations.

Even so, ratification has been held up by Republican opposition, triggered initially by Senator Jesse Helms, the ranking Republican on the Foreign Relations Committee, and then swelling to include 35 Senate Republicans, led by Bob Dole, the minority leader. The Republicans argue that the Administration's interpretations are not binding on other signatories and that some clauses could be con-

strued to undermine this nation's ability to strike its own balance domestically between environmental values and competing interests.

The opponents fretted, for example, that clauses requiring nations to promote the protection of habitats and species might be used to push for 'absolute' protection of the environment in the U.S., at the expense of commercial or even recreational purposes. That seems a far-fetched leap from a vaguely worded treaty with lots of weasel words, especially since the Clinton Administration insists the treaty neither requires nor prohibits changes in American environmental laws.

The opposition has already delayed ratification beyond the deadline that would have allowed the U.S. to participate as a signatory at a critical organizing meeting in late November. Americans can still participate as observers. Better yet, if the Senate ratifies the convention, they could attend with the added influence of a belated signatory.

Delay is not only pointless; it could be harmful. The U.S. needs to join this effort not only to enhance the global environment, but for its own good as well. Otherwise, American leadership in biotechnology and agriculture may be threatened as other countries deny the U.S. access to their genetic and biological resources.

Id.

[218] *Id.* (Editorial, *Biodiversity is Crucial to Our Future,* WASH. POST, Oct. 3, 1994). The editorial stated:

The Convention on Biological Diversity is the first comprehensive international agreement committing governments to conserve the earth's biological resources and use them in a sustainable manner. By producing clean water, oxygen, and food, biodiversity plays a critical role in maintaining the planet's life support systems.

The agreement is now before the Senate for approval. To date the Convention has been signed by over 160 countries and ratified by over 90, including the entire European Union, Japan, the United Kingdom, Germany, and France. The United States is one of the few industrialized nations yet to ratify the agreement.

Unfortunately, the Biodiversity Convention has stalled in the Senate because of partisan politics. This must stop. Neither a Democratic or a Republican issue, the Convention is important to our nation as a whole, including U.S. business interests and agriculture.

Though the Convention is currently in limbo, the 103rd Congress is still in session, meaning the Senate still has time to consider the agreement and vote its approval.

The following are examples of the wide support the Convention has received from the environmental, business, and agricultural communities.

The Biotechnology Industry Organization (BIO), representing over 500 biotechnology companies, university labs, and others, 'strongly supports speedy Senate ratification' because the U.S. must be 'at the conference table' to protect U.S. interests in 'matters of importance to our economic future.'

BIO, the Pharmaceutical Manufacturers Association, and the American Seed Trade Association: 'As representatives of major U.S. industries which are successfully working to create new medicines, food, and agriculture products, plus a substantial number of jobs for U.S. citizens, we declare our support for the Biodiversity Convention . . . Senate ratification should proceed at the earliest possible time.'

Merck & Co., a U.S. pharmaceutical company, one of the largest in the world, urges 'support of a speedy ratification of the Convention,' noting that biodiversity has generated 'some of the greatest pharmaceutical breakthroughs of this century.'

October 8, 1994 was the swan song for efforts by proponents of ratification of the CBD before the adjournment of the 103rd Congress. Majority Leader, Senator George Mitchell (D-ME) expressed his frustration by stating that he was "disappointed that some Members of the Senate will not allow the Senate to complete its work on this important treaty which will help the other nations reach the levels of environmental protection that we have in the United States."[219] Senator Mitchell continued his remarks by noting that "[a]s no document ever is, this treaty is not perfect,"[220] however, in his view "the treaty

---

New York Biotechnology Association: '. . .ratification of the Convention on Biological Diversity is a matter of prime importance to the further development of the biotechnology industry in the State of New York.'
Archer Daniels Midland Company, one of the largest agribusiness companies in the country, states that '. . .it is fundamentally important to American agribusiness, agriculture, and other industries that the United States include itself in this Convention. It will be a sad day for us if these meetings have to occur without any participation on our part. We see no downside for our country in ratifying this Convention.'
Farmers Union: 'The National Farmers Union (NFU) and its 253,000 family farm members strongly urge you to ratify the Convention on Biological Diversity before you adjourn in October.'
The American Corn Growers Association '. . . believes that ratification of this treaty will be in the best interest of production agriculture. For U.S. agricultural interests to be addressed, we must first have a seat at the table . . . In addition, by being a party to the Convention, the United States will ensure continued access to genetic resources. This is important to agriculture because access to foreign germplasm for plant breeding programs for such crops as corn will advance our ability to provide quality products to our agricultural processors.'
American Soybean Association: '[We] hope for expedited consideration of the treaty.'
National Cooperative Business Association: 'We believe that prompt consideration [or ratification] by the Senate in September is critical if U.S. interests are to be brought to bear on the implementation of the Convention. [We] hope that its approval is not delayed any further.'
American Farm Trusts represent thousands of farmers, rural residents, and others concerned with protection of farmland and conservation of natural resources. Ratification of the Biodiversity Convention would be a key step in the establishment of a sustainable national agricultural system, which is essential to the livelihood of the American farmer. Protection of biodiversity will help ensure the protection of strategic farmland — a primary resource for the future of American agriculture.
World Wildlife Fund: 'The Biodiversity Convention is the first concerted effort by the world community to conserve the planet's irreplaceable, but vanishing biological wealth. An enlightened self-interest, for the benefit of both present and future generations, should compel prompt ratification by the U.S. Senate.'

Id.

[219] 140 CONG. REC. S 15066 (daily ed. Oct. 8, 1994) (statement by Sen. Mitchell), *available at* http://thomas.loc.gov.

[220] *Id.*

was able to be brought before us because of the determined efforts by the [Clinton] administration to address the legitimate concerns that have been raised — particularly with respect to finance, technology transfer, and biotechnology."[221] Senator Mitchell went on to observe that "[b]iological resources underpin many sectors of the U.S. economy, including farming and the agriculture industry, and development of medicines, medical technology and biotechnology. Some estimate that biological resources contribute more than $87 billion annually to our gross national product."[222] Senator Claiborne Pell (D-RI), the Foreign Relations Committee Chairman, expressed his "regret that an objection was made to the majority leader's unanimous consent request to bring up the Convention on Biological Diversity for Senate consideration."[223]

Senator Pell lamented that:

> [M]ost other countries have recognized the importance and benefits of the convention. Indeed, over 160 nations — including the entire European Union and Japan — have ratified the convention. Most of these countries will participate in the upcoming meeting of the convention as parties.
>
> Because of Senate inaction, the United States will not. Because of Senate inaction, the United States — a world leader in the use of genetic resources in biotechnology agriculture, and pharmaceutical[s] — will attend the meeting as an observer.
>
> To my mind, that is an untenable situation and one that I hope we can rectify. Under Senate rules, the Convention will be referred to the Committee on Foreign Relations. I can assure supporters that I will make action on the convention one of my priorities for the coming Congress.[224]

On October 8, 1994, Senator Patrick Leahy (D-VT), Chairman of the Agriculture, Nutrition and Forestry Committee,

---

[221] *Id.*

[222] *Id.* at S 15067. Various attachments were appended to the record by Senator Mitchell.

[223] *Id.* at S 15068 (statement by Sen. Pell).

[224] *Id.* (statement by Sen. Pell). *See generally* U.S. Senate Committee on Foreign Relations, S. REP. No. 104-21 (1994), *available at* http://thomas.loc.gov (discussing the fact that the Senate did not act on ratification of the Convention on Biodiversity during the 103rd Congress).

added to the regrets of some of his colleagues that the Senate did not ratify the CBD.[225] The nub of the problem, in Senator Leahy's view, was that "certain groups created a crisis where one doesn't exist"[226] in raising objections to Senate ratification of the CBD. To support this thesis, Senator Leahy attached an article from the *Chicago Tribune* which discussed certain conspiracy theorists as being behind objections to ratification of the CBD.[227]

---

[225] *Id.* at S 15068.

[226] *Id.*

[227] *Id.* (attaching Jon Margolis, *Odd Trio Could Kill Nature Pact,* CHIC. TRIB., Sep. 30, 1994). The article noted as follows:

> It was negotiated by Republicans and signed by a Democrat.
>
> Its language was non-binding and its subject matter — the beauty of nature, the web of life and the love of learning — hardly seemed controversial. Environmental groups and big corporations all thought it was great.
>
> So even in today's contentious political setting, few expected trouble for the Convention on Biological Diversity, more commonly known as the biodiversity treaty.
>
> But that was before it ran into a bizarre political trio: the internal dynamics of the Republican Party, the anti-environmental 'Wise Use' movement and political extremist Lyndon LaRouche.
>
> Arising with unexpected fury, this opposition has stalled Senate ratification of the treaty and imperils it in the remaining days of the 103rd Congress.
>
> Although there is little doubt the treaty would be approved if it got to the Senate floor, the opposition of some Republicans could keep it from getting there. Senate Minority Leader Bob Dole (R-Kan.) and 34 of his fellow Republicans have expressed 'a number of concerns' about the treaty in a letter to Majority Leader George Mitchell (D-Maine).
>
> According to government officials and others involved in the ratification effort, Republican doubts about the treaty grew because of opposition from mainstream agricultural organizations.
>
> These organizations, including the American Farm Bureau Federation, had some substantive questions about elements of the treaty. But they were also being pressured from the rank and file, which had been bombarded with anti-treaty information — much of it demonstrably incorrect — from 'wise use' groups, which get most of their money from mining, logging and other resource-using companies.
>
> 'Unfortunately, what we've seen is that certain groups tried to create a crisis where one doesn't exist,' said John Doggett, the Farm Bureau's director of governmental relations. Doggett remains unhappy about some elements of the treaty, but he said his organization is no longer opposing ratification.
>
> But it was opposing the treaty early in August, which is when the serious opposition first came to the attention of the government officials responsible for the treaty. 'I was surprised,' said a State Department official. 'It really had not shown up on my radar screen.'
>
> In an effort to discover the reasons for the opposition, government officials met with representatives of agriculture groups at the Washington offices of the Farm Bureau on Aug. 5, 1994.
>
> According to two government officials, one participant held up and read part of an article that had been distributed by the American Sheep Industry Association.

The article claims that the treaty, which has been ratified by 78 nations, was written by 'extremists' who believe that farming, logging, fishing and mining violate the concept of 'sustainable use' and who want to impose the 'religious philosophy' of 'biocentrism,' defined as 'the view that all species have equal rights.' It also contends that the treaty establishes a 'supranational body' that will override national sovereignty.

In fact, the treaty, which states that 'states have sovereign rights over their own biological resources,' was approved by negotiators appointed by President George Bush. Pressured by some in his own party, Bush did refuse to sign the treaty, but the U.S. scientists and diplomats who negotiated it have continued to support it. It was signed last year by President Clinton.

Although the article was not signed, Tom McDonnell of the sheep industry group confirmed that it was written by Rogelio (sometimes called Roger) Maduro. Maduro is an associate of LaRouche, the conspiracy theorist who was released in January from federal prison, where he was serving a sentence for fraud and conspiracy.

Maduro is associate editor of 21st Century, one of LaRouche's magazines, and he writes for another Executive Intelligence Review. A version of his attack on the biodiversity treaty appears in the Sept. 2, 1994 edition of that journal.

McDonnell said that when he distributed the article, which he intended only for other members of his organization, he did not know that Maduro was associated with LaRouche. He also said the Sheep Industry Association is not taking any position on ratification of the treaty.

There is no such document, said a member of the staff of the UN Environmental Program. 'We have a biodiversity treaty and a secretariate,' she said.

The Global Biodiversity Assessment is a process, just beginning, in which scientists from all over the world will monitor the world's biological diversity.

Neither the Farm Bureau's Doggett nor the other participants in the Aug. 5, 1994 meeting said that Maduro's article was the only cause, or even the main cause, of opposition to the treaty. 'It was non-trivial,' said one participant, 'but I'm not sure that it was pivotal. One of the guys from the cattlemen's association held it up to explain the kind of response they were getting from their people.'

According to this participant, the Washington lobbyists knew that the article was irrational 'but even if they didn't think these objections had any substance, how far ahead of their own constituents could they get.'

One government scientist familiar with the situation said that farmers and ranchers, especially in the West, are a receptive audience for conspiracy theories. 'They're all bent out of shape about the Endangered Species Act, property rights and environmental regulations,' he said. "Some of their objections to have legitimate roots, but it makes them receptive to these statements that are paranoid and irrational.'

One of the objections of the treaty, for instance, is that it defines sheep and cattle as 'alien species' in the natural ecosystem. This might seem credible because in academic zoology livestock are so defined. 'But not in law,' said the government scientist. 'They are domesticated species,' and are so labeled in Article 2 of the treaty.

Although some leaders of the 'wise use' movement have been associated with Rev. Sun Myung Moon and other extremists, they have so far steered clear of LaRouche. But Maduro attended a meeting of the Wise Use Leadership Conference in July.

This could pose a problem for Republicans, such as Dole who have grown increasingly friendly toward 'wise use' positions and leaders in the last few years. Although 'wise use' organizations are considered to be politically powerful only in New Mexico, Wyoming and Utah, they have been quietly gaining strength in

4. Resisting Ratification, 1995-2002

The midterm congressional elections of November 1994 led to the surprising, and revolutionary, result that the Republicans gained control of both the U.S. House of Representatives and the U.S. Senate.[228] Such a result put the most vocal advocates of ratification of the CBD in the minority in the U.S. Senate, with Senator Bob Dole (R-KS) becoming Majority Leader[229] and Senator Jesse Helms (R-NC) becoming Chairman of the Foreign Relations Committee.[230]

Since 1995, Republicans have played a major role in shaping the environmental agenda and, in particular, the biodiversity agenda in the Congress.[231] The Democrats gained control of the Senate in May of 2001 when Vermont Senator James Jeffords defected from the Republican Party because of disputes with more conservative Republicans. The Senate, however, had not focused on environmental issues during 2001-2002, being preoccupied during the summer of 2001 on budgetary issues and since the September 11, 2001 terrorist attacks on America on domestic security issues.[232]

Since 1995, congressional debates and discussions, as well as biodiversity legislative proposals, have been characterized

---

GOP circles as Republican leaders jockeying for the presidential nomination move to the right to get the approval of conservative political activists.

Id.

[228] MICHAEL BARONE & GRANT UJIFUSA, THE ALMANAC OF AMERICAN POLITICS — 1996 xxx-xxiv (1995) (discussing House and Senate elections of 1994).

[229] *Id.* at 523-26.

[230] *Id.* at 987-88.

[231] With Bill Clinton's re-election as President in 1996, the Clinton Administration, however, had continuing influence, through the start of 2001, in executive enforcement of domestic laws protecting endangered species and with regard to international environmental diplomacy. Moreover, federal government reports, issued throughout Clinton's presidency, continued to have an influence on biodiversity information and policy. *See e.g.*, U.S. DEPT. OF THE INTERIOR, NATIONAL BIOLOGICAL SERVICE, OUR LIVING RESOURCES: A REPORT TO THE NATION ON THE DISTRIBUTION, ABUNDANCE, AND HEALTH OF U.S. PLANTS, ANIMALS, AND ECOSYSTEMS (1995) (report providing a comprehensive and valuable analysis of the causes for decline of some species and habitats in the United States, while giving insight into successful management strategies that have resulted in recovery of other species and habitats, and identifying research needs by reviewing information gaps that must be filled). Interestingly, however, the Congress voted in 1995 to eliminate the National Biological Survey — the author of the previous report — and to fold its functions into the U.S. Geological Service. *See* H.R. CONF. REP. NO. 104-300 (1995), *available at* http://thomas.loc.gov.

[232] *See generally,* CONGRESSIONAL QUARTERLY, INC., 2001 CONGRESSIONAL QUARTERLY ALMANAC (2002) (forthcoming).

by deference to private property rights and restrictions on government power to protect endangered species and ecosystems. For example, the House Committee on Resources, with Congressman Don Young (R-AK) as the new Republican Chairman, submitted the proposed *Endangered Species Conservation and Management Act of 1995*[233] to the House for consideration in conjunction with a report recommending passage.[234] In the section-by-section analysis of the bill, the committee report discussed several ways that the proposed legislation would circumscribe the scope of biodiversity protection under existing law, while advancing economic concerns and states' rights.[235] The Clinton Justice Department issued a vigorous objection to the bill and the legislation did not become law.[236]

During the 104th Congress, defrocked Democrat Senate Committee Chairmen, such as Senator Claiborne Pell (D-RI) and Senator Paul Sarbanes (D-MD) were relegated to voicing effete protests on the floor of the Senate about how the Republican-controlled Senate had prevented consideration of the unratified Convention on Biodiversity.[237]

---

[233] H.R. 2275, 104th Cong. (1995), *available at* http://thomas.loc.gov.

[234] H.R. REP. NO. 104-778 (1995),

[235] *See, e.g,. id.* § 3 ("Section 3 specifically amends the findings, purposes, and policies of the ESA to state that economic impacts and private property rights are to be given much greater consideration while protecting species"; "The amendments made by this section are intended to set forth the principle that Federal agency action taken pursuant to the ESA shall not use or limit the use of privately owned property when the action diminishes the value of the property without payment of fair market value to the owner of private property"); § 105 ("makes it clear that 103 years of Congressional intent to defer to the States in matters of water administration and allocation and the creation of water rights under State law is not to be usurped by the implementation of the ESA"); § 302 ("amends ESA Section 4 . . . to mandate that scientific peer review of certain actions by the Secretary be conducted. Actions to be reviewed include listing and delisting decisions, designation of critical habitat, [and] a determination that an action is likely to jeopardize the continued existence of a species").

[236] *See id.* "U.S. Department of Justice, Office of Legislative Affairs Report." ("the Justice Department cannot support legislation that would render the Endangered Species Act uninforceable through enforcement loopholes and multiple opportunities for litigation"). *See also id.* "Dissenting Views" ("Of paramount concern are the bill's changes to the definitions of the terms 'harm' and 'species'. By limiting 'harm' to an action that 'proximately and foreseeably kills or physically injures an identifiable member of an endangered species', the legislation abolishes 90% of the ESA's authority to protect habitat. For example, this amendment would eliminate the ESA's ability to prevent commercial development of the entire winter feeding grounds of the highly endangered whooping crane while the birds were on their summer breeding grounds in Canada").

[237] *See, e.g.,* 141 CONG. REC. S 16402 (daily ed. Oct. 31, 1995) (statement by Sen. Sarbanes); 142 CONG. REC S11257, *available at* http://thomas.loc.gov.

During the remainder of the 1990s and into the new millennium up to the present, the United States Senate failed to call for the ratification of the CBD. What little direct or indirect reference Congress made to the Convention from 1997 forward carried, for the most part, the negative connotation that the CBD was a type of international undertaking that would compromise private property rights, national sovereignty and states' rights,[238] or was undesirable because of the cumbersome financial mechanism inserted in the Convention.[239] Moreover, Congress made scant mention of the Cartagena Biosafety Protocol to the CBD dealing with genetically modified organisms.[240] Whether this situation will change following the defection of Senator Jeffords (VT) from the Republican party in May of 2001, and the subsequent shift in committee leadership dynamics, remains to be seen. Moreover, it seems unlikely that the new President, George W. Bush, who took office in January of 2001, will lead an American effort to implement the CBD.

II. UNDERSTANDING AMERICA'S RESPONSE

America's response to the CBD by officials of the federal government, from 1989 to 2002, is characterized by four interrelated themes: (a) institutional tension between the President and Congress concerning foreign affairs;[241] (b) conservative concern about the emerging configuration of international environmental law;[242] (c) American corporate interest in maximiz-

---

[238] *See, e.g.*, 143 CONG. REC. H 8543 (daily ed. Oct. 7, 1997) (statement by Rep. Emerson), *available at* http://thomas.loc.gov; *id.* at H 8545 (statement by Rep. Duncan); *id.* at E 2029-30 (daily ed. Oct. 21, 1997) (statement by Rep. Young) (attaching resolution from the Colorado and Kentucky legislatures); 144 CONG. REC. E 2001 (daily ed. Oct. 8, 1998) (statement by Rep. Chenoweth), *available at* http://thomas.loc.gov; 145 CONG. REC. E 298 (daily ed. Mar. 1, 1999) (statement by Rep. Young), *available at* http://thomas.loc.gov.

[239] *See, e.g.*, 144 CONG. REC. S 2448 (daily ed. Mar. 23, 1998) (statement by Sen. Feingold), *available at* http://thomas.loc.gov.

[240] *See, e.g.*, 146 CONG. REC. E 2072 (daily ed. Nov. 2, 2000) (statement by Rep. Kucinich), *available at* http://thomas.loc.gov. For background information concerning American involvement in drafting the Cartagena Biosafety Protocol *see supra* notes 24-30 and accompanying text.

[241] *See infra* notes 245-84 and accompanying text.

[242] *See infra* notes 285-307 and accompanying text.

ing biotechnology profits;[243] and (d) complexity in resolving international physical and economic spillovers.[244]

A. INSTITUTIONAL TENSION BETWEEN THE PRESIDENT AND CONGRESS CONCERNING FOREIGN AFFAIRS

Both the vehement criticism by certain members of Congress of President George H.W. Bush's decision not to sign the CBD for the United States[245] in 1992, as well as the impassioned opposition by various members of Congress of President William Jefferson Clinton's action of directing the Convention to be signed in 1993 and submitting it for subsequent Senate ratification[246] should be viewed as predictable perturbations of the longstanding institutional conflict between the President, as head of state, and the Congress, as the national legislature, in conducting foreign affairs and asserting national sovereignty.[247] "Because specific constitutional references to foreign relations are sparse, much of the foreign affairs power has evolved from constitutionally implied powers and, perhaps, from extra-constitutional sources."[248]

It is clear that both President Bush's decision not to sign the CBD and President Clinton's decision to sign the Convention were supported by Article II of the Constitution which specifically empowers the President to make treaties — and, by implication, not to make treaties — with the concurrence of two-thirds of the Senate.[249] Similarly, it is clear that both the supporters of CBD ratification in the Senate, as well as those Senators who opposed ratification, were specifically empowered to provide their "advice" on the inherent wisdom of the United States consenting to the general and specific terms of the Convention.[250] Yet, various historical, legal-policy tensions sur-

---

[243] *See infra* notes 308-323 and accompanying text.

[244] *See infra* notes 324-25 and accompanying text.

[245] *See supra* notes 90-104 and accompanying text.

[246] *See supra* notes 190-205 and accompanying text.

[247] "The United States, in its capacity as a sovereign nation, must interact with other countries in the international realm, for the ability of a nation to conduct foreign relations is inherent in the concept of sovereignty." JOHN E. NOWAK & RONALD D. ROTUNDA, CONSTITUTIONAL LAW (5th ed. 1995) 204 (footnote omitted) [hereinafter CONSTITUTIONAL LAW].

[248] *Id.*

[249] U.S. CONST. art. II, § 2, cl. 1.

[250] *Id.*

round the subject of the constitutional treaty power of the federal government which probably contributed to the ratification stalemate in the Senate regarding the CBD.

The first tension is historical: ever since the Philadelphia Constitutional Convention of 1787, Americans have vigorously debated the appropriate roles of various officials in entering international agreements. "The recurring conflict between the president and Congress over the treaty-making power is rooted in the doctrine of separation of powers, which is basic to the governmental structure of the United States."[251] During the Constitutional Convention it was, at first, "assumed that the existing power of Congress under the Articles of Confederation to approve treaties by a two-thirds majority vote would be transferred intact to the legislative branch of the new government."[252] Interestingly, "[c]ontinued legislative control of treaty-making was taken for granted" by the Constitutional Convention delegates "despite the fact that it was the exclusive prerogative of the executive in all other governments"[253] at the close of the 18th century. Alexander Hamilton, however, challenged the prevailing assumption of legislative exclusivity in treaty-making on June 18, 1787 by proposing an executive elected for life, who, "along with other powers, would have with the advice and approbation of the Senate, the power of making all treaties."[254] The fat was in the fire. Following Hamilton's proposal, the delegates devoted considerable attention and debate to the question of treaty-making power; "[s]everal attempts were made to alter the proportion of the Senate whose consent would be required and to add House [of Representatives] participation in treaty making."[255] The institutional tension continued with the experience of President George Washington, who was "confused"[256] by Senate action regarding proper procedures for arriving at "treaties with Indian tribes" as opposed to "treaties with European nations,"[257] and later put off by "the chilly reception he had received in the Senate cham-

---

[251] CONGRESSIONAL QUARTERLY INC., 1 GUIDE TO CONGRESS (5th ed. 1999) 198 [hereinafter CQ GUIDE TO CONGRESS].

[252] *Id.*

[253] *Id.*

[254] *Id.* (internal quotation marks omitted).

[255] *Id.*

[256] *Id.* at 199.

[257] *Id.*

ber"[258] in attempting to orally establish ground-rules for consultation with Senators on future treaties. Indeed, the entire course of American history, for over two hundred years up to the present, has been characterized by stormy relations between the President and the Congress over appropriate responsibilities attending the treaty making power.[259]

The second tension is procedural in nature: a rich American tradition of institutional conflict and disagreement exists over specific questions of how treaties should be negotiated, debated, voted upon, conditioned or reserved, and interpreted. The following issues are provided by way of selected, summary, illustration of some key substantive issues within this tradition. Enduring questions have entailed: (a) the right of the Senate to initiate treaty making by proposing negotiations to the President;[260] (b) the need for the Senate to confirm the President's appointment of treaty negotiators;[261] (c) the validity of Senate or House advice to the executive by specifying the limits within which negotiations of international agreements were to operate;[262] (d) the appropriateness of Presidential selection of members of Congress as negotiators of treaties.[263] The

---

[258] *Id.*

[259] *See id.* at 199-202 (discussing the experiences of various Presidents in dealing with both houses of Congress over the terms of treaties, implementing legislation, appropriations, and treaty-making procedures).

[260] *Id.* at 199. "Proponents have defended such initiatives as the right and duty of the Senate under the Constitution as a demonstration of national unity. Opponents have contended that for the Senate to make the first move was officious and disrespectful, and that it tended to shelter the president from responsibility in treaty making." *Id.* 199-200 (internal quotation marks omitted).

[261] *Id.* at 201.

[262] *Id.*

[263] *Id.* "The first members of Congress selected to negotiate a treaty were Sen. James A. Bayard of Delaware and House Speaker Henry Clay. [President] Madison named them to help negotiate a treaty of peace with Great Britain in 1814. Both resigned their places in Congress on the ground that the two offices were not compatible." *Id.*

> Moreover, on at least *three* occasions resolutions were introduced in the Senate to prohibit members of that body from serving as treaty negotiators. The first resolution, introduced in 1870, was defeated after a heated all-night debate when it was turned into a question of confidence in President Grant. The second was occasioned by President McKinley's appointment of three members of the Foreign Relations Committee to a commission to negotiate the Treaty of Paris in 1898. The Senate committee to which a resolution of protest was referred, hesitated to make a report that might have appeared to censure some of its own members, but it directed the chairman to visit the president and express the Senate's strong disapproval.

Senate switched its position by expressing "resentment" of President Wilson's failure to include any senators on a 1919 peace commission.[264] "After Wilson's experience, the appointment of senators to important international conferences subsequently became more common,"[265] with "[s]uccessive administrations [in recent decades] follow[ing] the practice of including members of Congress on delegations to international conferences and involving members in negotiations,"[266] (e) the requirements of the Senate voting and debating procedures (i.e. whether a roll call vote on a treaty is appropriate and whether debate should be open to the public or conducted in secrecy);[267] (f) the wisdom and validity of Senate amendments to treaties after the completion of executive negotiations.[268] On two occasions in American history, the Supreme Court has upheld the power of the Senate to amend treaties: *Haver v. Yaker*[269] and *Fourteen Diamond Rings v. U.S.*[270] "One of the best known U.S. qualifications to an international agreement is the so-called Connally reservation to the compulsory jurisdiction clause of the statute of the International Court of Justice;"[271] (g) the wisdom and validity of Senate reservations,[272] declara-

---

> Theodore Roosevelt's selection of Sen. Henry Cabot Lodge, . . . to serve on the Alaskan boundary tribunal led to the third attempt of the Senate to prohibit such service by senators. But a resolution opposing the selection was never acted upon.

Id.

[264] *Id.*

[265] *Id.* at 202.

[266] *Id.*

[267] *Id.* at 202-03.

[268] *Id.* at 203. "The Constitution sets forth no procedures for, or restrictions on, amending treaties. But since the time of the Jay Treaty with Great Britain the Senate has claimed authority to modify treaties after completion of negotiations." *Id.* "The wisdom of the Senate practice of amending treaties was questioned as early as 1805 by John Quincy Adams, who was then a senator from Massachusetts. 'I think amendments to treaties imprudent', Adams said in Senate debate. 'By making them you agree to all the treaty except the particular you amend, and at the same time you leave it optional with the other party to reject the whole'." *Id.* (endnote omitted).

[269] 76 U.S. 32 (1869).

[270] 183 U.S. 176 (1901).

[271] CQ GUIDE TO CONGRESS, *supra* note 251, at 203.

[272] *Id.* at 204. According to a recent Senate Foreign Relations Committee view, Senate "reservations" to a treaty "are presumed to be deliberate changes in the legal effect of treaty provisions, particularly as they affect the country entering the reservation." *Id.* From the executives' perspective, "the Senate's alteration of treaties [by reservation] has become an increasingly serious problem because of the growing tendency to modify U.S. relations through multilateral treaties. Resubmission of a [revised] treaty to foreign governments — any of which may wish to alter other provisions

tions[273] and understandings[274] as qualifications to consent of a treaty; and (h) the judicial interpretation of treaty law in juxtaposition with constitutional law and domestic federal and state laws.[275] Justice Holmes created an interpretational conundrum in his opinion for the *Court in Missouri v. Holland*,[276]where he suggested that the Supremacy Clause[277] meant that treaties were equal to the Constitution, even if they were not made in pursuance of it."[278] In *De Geofroy v. Riggs*,[279] Justice Field, in dicta, argued that the specific restraints of the Bill of Rights, and other similar constitutional restraints, limit the treaty power. Moreover, Justice Black, in the plurality opinion in *Reid v. Covert*,[280] issued dicta similar to Justice Field's *De Geofroy* dicta. "Given these [presumed] limitations on the scope of the treaty making power, unless treaties are contrary to the Constitution, they are equal in status to congressional legislation, and, as expressly provided in the text of the Constitution, the supreme law of the land."[281]

Concerned about the sweeping potential impact of the CBD on the American constitutional right that "private property [shall not] be taken for public use without just compensation,"[282] and the CBD's potential impact on domestic legal obligations to protect and protect biodiversity, several members of Congress balked at the prospect of having the United States commit to the Convention.[283] Relying on delay tactics, various

---

of the treaty in view of U.S. changes — presents almost insuperable obstacles to final agreement." *Id.*

[273] *Id.* According to a recent Senate Foreign Relations Committee view, "declarations" are "statements of intent or policy which accompany ratification, but which are not directly related to provisions of the treaty itself." *Id.*

[274] *Id.* According to a recent Senate Foreign Relations Committee view, "understandings" are "statements of interpretation intended to clarify the legal effect of the agreement without necessarily changing it." *Id.*

[275] The federal courts interpret executive agreements and treaties as a matter of course. LOUIS HENKIN, FOREIGN AFFAIRS AND THE CONSTITUTION 216 (1972). The Supreme Court affirmed its authority to construe international law in the Paquete Habana, stating: "International law is part of our law and must be ascertained and administered by the courts of Justice . . ." 175 U.S. 677, 700 (1900).

[276] 252 U.S. 416, 433 (1920).

[277] U.S. CONST. art. VI, cl. 2.

[278] CONSTITUTIONAL LAW, *supra* note 247, at 216-17.

[279] 133 U.S. 258, 266-67 (1890).

[280] 354 U.S. 1, 16 (1957).

[281] CONSTITUTIONAL LAW, *supra* note 247, at 217 (footnote omitted).

[282] U.S. CONST. amend V.

[283] *See, e.g., supra* notes 190-205 and accompanying text.

Senators successfully prevented full consideration of the CBD by allowing it to languish in the Foreign Relations Committee.[284]

B. CONSERVATIVE CONCERNS ABOUT EVOLVING INTERNATIONAL ENVIRONMENTAL LAW

In 1972, international environmental law was a fledgling field with less than three dozen multilateral agreements.[285] Since 1972, the burgeoning field of international environmental law has expanded at an extremely rapid rate of growth, with "hundreds of international environmental instruments hav[ing] been concluded."[286] Indeed, "[i]ncluding bilateral and multilateral instruments . . . there are close to nine hundred international legal instruments that have one or more significant provision addressing the environment."[287] While the "international community's learning curve as reflected in international environmental law is surprisingly steep,"[288] it appears that the United States Senate may be reaching "burnout" or "future shock"[289] in agreeing to ever more stringent and broad international environmental undertaking, like the CBD, by the United States.

It is likely, in this regard, that several members of the Senate have been and continue to be sympathetic to the critiques of domestic and international environmental commitments by the United States that have been raised in conservative policy studies. In the first place, some of these theorists challenge the continued existence of the domestic Endangered

---

[284] Such a result is not unusual. "In early 1999 there were about fifty treaties and other international agreements awaiting [full Senate] action [and bottled up in the Foreign Relations Committee], including one that dated back to 1949." CQ GUIDE TO CONGRESS, *supra* note 251, at 197.

[285] INTERNATIONAL ENVIRONMENTAL LAW ANTHOLOGY 3 (Anthony D'Amato & Kirsten Engel eds. 1996) [hereinafter INTERNATIONAL ENVIRONMENTAL LAW ANTHOLOGY] (citing Edith Brown Weiss, *International Environmental Law: Contemporary Issues and the Emergence of a New World Order,* 81 GEO. L. J. 675-84, 702-10 (1993)).

[286] *Id.* at 4.

[287] *Id.*

[288] *Id.* at 5.

[289] "Future shock" is a term derived from the book ALVIN TOFFLER, FUTURE SHOCK (1970). "[T]he disorientation and stress brought on by trying to cope with too many changes in too short a time." ALVIN TOFFLER, POWER SHIFT, XIX (1990).

Species Act,[290] let alone the CBD, because of what they perceive as perverse incentives created by the American statute. As argued by one recent conservative policy study, American "[p]roperty owners who expect to experience economic losses if their property is identified as ecologically important,"[291] under the Endangered Species Act, "are tempted to destroy that habitat or species population before public officials become aware of its existence."[292] Thus, "[n]umerous analysts" have concluded that the "shoot, shovel and shut up dynamic largely explains why the Endangered Species Act . . . has failed to either stabilize listed populations or return a single species to health."[293]

Second, some conservative theorists argue that the Endangered Species Act "which prevents private property owners from making certain uses of their land in order to secure the public good of biological diversity, should . . . be replaced since it provides no compensation to landowners for public takings."[294] "Instead," according to this view, "a federal biological trust should be established that would be funded out of general revenues"[295] and the "trust fund would be used to purchase conservation easements . . . from private landowners in order to protect the habitat of endangered species."[296]

Third, some conservative commentators have questioned the validity of certain scientific principles underlying interna-

---

[290] 16 U.S.C. 1531, et. seq.

[291] CATO INSTITUTE, CATO HANDBOOK FOR CONGRESS: POLICY RECOMMENDATIONS FOR THE 107TH CONG. 485 (2001).

[292] *Id.*

[293] *Id.* (internal quotation marks omitted). *See also* CHARLES C. MANN & MARK L. PLUMMER, NOAH'S CHOICE: THE FUTURE OF ENDANGERED SPECIES 245 (1995) (arguing that the ESA has not provided an effective safety net for declining species, much less promoted species recoveries).

[294] *Id.* at 485-86.

[295] *Id.* at 486.

[296] *Id.* According to this perspective:

> The virtue of such a reform is that landowners would have incentives rather than disincentives to protect species habitat. Moreover, the cost of biological preservation would become more transparent, which allows better-informed decision-making about the use of resources. Finally, such a reform would decriminalize the "ranching" of endangered species for commercial species. The ESA prohibits such practices out of a misguided belief that any commercial use of an endangered species inevitably contributes to its decline. Yet, the experience of the African elephant and other threatened species belies that concern and strongly suggests that, if private parties are allowed to own and trade animals as commodities, commercial demand is a critical component of population protection.

Id.

tional environmental treaties like the United Nations Framework Convention on Climate Change and the subsequent Kyoto Protocol.[297] By implication, therefore, these theorists might find flaws in the science underlying other international environmental treaties like the CBD.

Fourth, some conservative policy analysts criticize American strategic over-extension[298] in attempting to show global leadership[299] to try to "solve all the world's problems."[300] According to this view, which encompasses a challenge to considering the global environment a strategic vital interest,[301] it is folly to consider worldwide biodiversity preservation as a legitimate vital interest of the United States that is strategically important to the nation.[302]

Fifth, some conservative theorists look at the United Nations — the driving force behind the CBD — as a hyperactive organization that "has steadily sought to increase the scope and strength of its authority"[303] in a way that is antithetical with American interests.[304] Accordingly, those who espouse this argument, by implication, hold a jaundiced view of expansive international environmental lawmaking like the CBD.

Sixth, it is fair to assume that most conservative American theorists support a view of international environmental equity that supports "national sovereign rights to exploit resources within a country's jurisdiction or control, combined with rights to shared or common resources (whether for natural resources or for pollution emissions) on a first-come, first served basis."[305] Thus, this conservative equity ethic would be expected to have problems with new claims for international environmental equity like "sustainable development,"[306] which forms the foundation of the CBD.[307]

---

[297] *Id.* at 499-511.
[298] *Id.* at 514.
[299] *Id.*
[300] *Id.*
[301] *Id.*
[302] *Id.* at 573.
[303] *Id.*
[304] *Id.* at 574-75.
[305] INTERNATIONAL ENVIRONMENTAL LAW ANTHOLOGY, *supra* note 285, at 6.
[306] *Id.*
[307] *Id.* at 8.

C. AMERICAN CORPORATE INTERESTS IN MAXIMIZING BIOTECHNOLOGY PROFITS

To fully understand the Senate's reticence in ratifying the CBD, it is crucial to appreciate the political salience of fostering American corporate interests in maximizing what they view as their legitimate biotechnology profits by developing and marketing useful biotechnology innovations for agriculture, pharmaceuticals and medicine. While some of the initial objections by American biotechnology firms to America's signing of the CBD[308] were softened, and ameliorated, by the Clinton Administration's efforts to obtain Senate ratification,[309] fundamental problems with the Convention's biotechnology regulatory provisions that emerged from Rio in 1992 probably continued to bother many members of the United States Senate.

First, "[t]he final text of the Convention" on biodiversity trade issues was "muddled, vague and inconsistent, even by the relaxed standards of international agreements."[310]

Second, the April 1993 proceedings of the expert panel established to implement the biotechnology regulatory articles of the CBD[311] — in Article 9 and Article 19[312] — would have opened up the possibility of international regulation of American biotechnology "even where research, development and use [of biotechnologies] were exclusively domestic."[313]

Third, reports concerning the climate of discussions in 1994 by the Intergovernmental Committee for the CBD revealed what one American commentator, writing in 1995, called "an irrational, paranoid and angry coalition."[314] Specific

---

[308] *See supra* notes 132-33 and accompanying text.

[309] *See supra* notes 207-18 and accompanying text.

[310] David Downes, *New Diplomacy for the Biodiversity Trade: Biodiversity, Biotechnology and Intellectual Property in the Convention on Biological Diversity,* 4 TOURO J. TRANSNT'L. 1, 8 (1993).

[311] Henry I. Miller, *Is the Biodiversity Treaty a Bureaucratic Time Bomb?,* HOOVER INSTITUTION ESSAYS IN PUB. POL'Y 5 (1995).

[312] "In Article 8, there is language calling for measures to regulate, manage or control the risks associated with the use and release of living modified organisms resulting from biotechnology which are likely to have adverse environmental impacts that could affect the conservation and sustainable use of biological diversity." *Id.* at 3 (internal quotation marks omitted). Article 19 of the CBD mentions the possible "need for" an international biosafety protocol. *Id.*

[313] *Id.* at 7 (emphasis omitted).

[314] *Id.* at 8.

impressions of the international negotiating climate in 1994 for a biosafety protocol included the following observations: "widespread ignorance about biotechnology among developing country delegates, coupled with fears based on past experience with dumping of unsafe products from the North;"[315] "a contentious and polarized climate, in which the U.S. views were isolated and demonized;"[316] "grotesque and revisionist misrepresentations by a certain developing country about previous consensus on the need for a biosafety protocol,"[317] and "rabidly anti-biotechnology propaganda by three Non-Governmental Organizations (NGOs) which introduced a series of anti-biotechnology canards, misrepresentations and distortions as factual taken as gospel by the legions of uninformed."[318]

Fourth, the CBD protocol procedure dealing with NGOs in Article 23, and "the mechanism for exclusion"[319] of NGOs by a vote of "one-third of the countries present"[320] appeared in 1995 "to preclude the participation of organizations that represent commercial mining, timber, agri-business, livestock, fishing, and energy interests."[321] According to one commentator, writing in 1995:

> Under such conditions of negotiation and deliberation, a rational result would be virtually impossible and the United States could be sandbagged into a scientifically bankrupt and anti-innovative regulatory scheme that would damage our biotechnology . . .[322]

Fifth, from the perspective of many individual United States senators in 1993-94 considering the wisdom of ratifying the CBD, the fact that a subsequent biosafety protocol did not have to be submitted to the Senate for separate advice and consent by the Clinton Administration[323] was probably an important concern militating against CBD ratification.

---

[315] *Id.* (internal quotation marks omitted).
[316] *Id.* (internal quotation marks omitted).
[317] *Id.* (internal quotation marks omitted).
[318] *Id.* (internal quotation marks omitted).
[319] *Id.*
[320] *Id.*
[321] *Id.*
[322] *Id.* at 8-9.
[323] *Id.* at 9.

D. COMPLEXITIES IN RESOLVING INTERNATIONAL PHYSICAL AND ECONOMIC SPILLOVERS

Despite the upbeat and optimistic view of some commentators that the international community is capable and willing to tackle evermore ambitious international environmental problems through imaginative techniques of international lawmaking,[324] the devil is in the details. It is hard enough for a domestic sovereign nation like the United States to rationally and efficiently regulate physical and economic spillovers between the states within its borders.[325] Attempts at international regulation of physical and economic spillovers is, no doubt, at least an order of magnitude more complicated, however, than national regulation. So, it is not surprising that the proposed terms of the CBD generated great controversy, in general, and within the United States, in particular.

III. A VIEW TOWARD THE FUTURE

As American citizens and policymakers ponder the future of global biodiversity protection, on the eve of the World Summit on Sustainable Development in Johannesburg, South Africa, three overarching issues merit special consideration: (a) the importance of American leadership and engagement in global environmental affairs;[326] (b) the wildcard implications of the terrorist attacks of September 11, 2001;[327] and (c) pragmatic concerns.[328]

---

[324] *See, e.g.*, ALEXANDRE KISS & DINAH SHELTON, INTERNATIONAL ENVIRONMENTAL LAW xxxiii (1991) (foreword by Maurice F. Strong noting "[t]he power of international law as a regulatory and preventative tool cannot be overestimated").

[325] ROGER W. FINDLEY & DANIEL A. FARBER, ENVIRONMENTAL LAW 266 (5th ed. 1999).

[326] *See infra* notes 329-70 and accompanying text.

[327] *See infra* notes 371-402 and accompanying text.

[328] *See infra* notes 403-26 and accompanying text. For discussion of the upcoming Johannesburg Summit, *see generally* DUNCAN BRACK ET AL., FROM RIO TO JOHANNESBURG: THE EARTH SUMMIT AND RIO+10 (Royal Institute of International Affairs Briefing Paper No. 19, March 2001). For further details, *see* http://www.johannesburgsummit.org/index.html (last visited Jan. 10, 2002).

A. THE IMPORTANCE OF AMERICAN LEADERSHIP IN GLOBAL ENVIRONMENTAL AFFAIRS

Paul E. Hagen has asserted in a recent article:

> In an era marked by rapid globalization, new systems of global economic and environmental governance are emerging that require the full engagement and participation of the world's largest economy and only remaining superpower. Many global environmental problems such as the impacts of climate change, the preservation of biological diversity, and trans-boundary air pollution demand multilateral responses that include the participation of the United States, one of the world's most knowledgeable problem-solvers. Unfortunately, while the United States continues to exercise leadership on international economic and security matters, it may be missing a historic opportunity to move governments closer to the goal of sustainable development.[329]

While the CBD and the CBD's Cartagena Protocol on Biosafety are flawed,[330] it is folly for the United States to opt-out of an emerging international system of biodiversity governance. First, whether we like it or not, the emerging CBD regulatory system will directly impact trade by American corporations and products of biotechnology and will impact the access by American corporations to biological resources in other nations.[331]

Second, in spite of the reactionary view of some American conservative theorists,[332] environmental and natural resources issues are of strategic international importance to the United States.[333] This reality is borne out by recent government report, published by the National Foreign Intelligence Board under the authority of the Central Intelligence Agency (CIA). The report, entitled *Global Trends 2015: A Dialogue About the Fu-*

---

[329] Hagen, *supra* note 30, at 28.

[330] *See supra* notes 30 and 166-79 and accompanying text.

[331] Hagen, *supra* note 30, at 28.

[332] *See supra* notes 298-303 and accompanying text.

[333] Hagen, *supra* note 30, at 28. *See, e.g.*, MICHAEL T. KLARE, RESOURCE WARS: THE NEW LANDSCAPE OF GLOBAL CONFLICT (Metropolitan Books 2001); Daniel C. Esty, *in Pivotal States and the Environment,* THE PIVOTAL STATES: A NEW FRAMEWORK FOR U.S. POLICY IN THE DEVELOPING WORLD 290 (Robert Chase et al. eds., W.W. Norton & Co. 1999); Alexandre S. Timoshenko, *Ecological Security: Response to Global Challenges, in* ENVIRONMENTAL CHANGE AND INTERNATIONAL LAW: NEW CHALLENGES AND DIMENSIONS 413 (Edith Brown Weiss-ed., United Nations University Press 1992).

ture With Nongovernment Experts,[334] identifies seven "major drivers and trends that will shape the world of 2015."[335] These key drivers and trends are: (1) demographics, (2) natural resources and environment, (3) science and technology, (4) the global economy and globalization, (5) national and international governance, (6) future conflict, and (7) the role of the United States.[336] The report's analysis of the natural resources and environmental driver is sobering:

> Contemporary environmental problems will persist and in many instances grow over next 15 years. With increasingly intensive land use, significant degradation of arable land will continue as will the loss of tropical forests. Given the promising global economic outlook, greenhouse gas emissions will increase substantially. *The depletion of tropical forests and other species-rich habitats, such as wetlands and coral reefs, will exacerbate the historically large losses of biological species now occurring.*[337]

Moreover, the *Global Trends 2015* report notes that while "[t]he consensus on the need to deal with environmental issues will strengthen,"[338] especially "in the developed world,"[339] the "progress in dealing with them will be uneven."[340] Furthermore, the report concludes that "[s]ome existing [international environmental] agreements, even when implemented, will not be able by 2015 to reverse the targeted environmental damage they were designed to address"[341] and, specifically, that some international agreements, "such as the Convention on Biodiversity, will fall short in meeting their objectives."[342]

Third, while scientific and technological advances in the biotechnology field "[b]y 2015 . . . will be in full swing with major achievements in combating disease, increasing food produc-

---

[334] NATIONAL INTELLIGENCE COUNCIL, CENTRAL INTELLIGENCE AGENCY, GLOBAL TRENDS 2015. A DIALOGUE ABOUT THE FUTURE WITH NONGOVERNMENT EXPERTS (2000) [hereinafter GLOBAL TRENDS 2015].

[335] *Id.* at 5.

[336] *Id.*

[337] *Id.* at 31 (emphasis added).

[338] *Id.*

[339] *Id.*

[340] *Id.*

[341] *Id.*

[342] *Id.*

tion, reducing pollution, and enhancing the quality of life,"[343] various "biotechnologies will continue to be controversial for moral and religious reasons"[344] including technologies for "genomic profiling,"[345] "biomedical engineering,"[346] "therapy and drug developments,"[347] "genetic modification,"[348] and "DNA identification."[349] International controversy will be exacerbated if the United States insists on continuing to "go it alone" in developing and marketing biotechnologies in the international market place without feedback from other nations.

Fourth, "U.S. influence and credibility in key international forums is rapidly eroding, as other countries assume leadership while Congress and the Executive Branch"[350] continue to shirk making "the tough decisions and investments required to insure effective participation on the international [environmental] stage."[351]

Fifth, the loss of American influence and credibility in key international environmental forums,[352] by remaining in the background concerning international biodiversity governments, risks bleeding over into other international arenas such as the

---

[343] *Id.* at 33.

[344] *Id.*

[345] *Id.* (capitalization omitted). Genomic profiling, "by decoding the genetic basis for pathology . . . will enable the medical community to move beyond the description of diseases to more effective mechanisms for diagnosis and treatment." *Id.*

[346] *Id.* (capitalization omitted). Biomedical engineering, "exploiting advances in biotechnology and 'smart' materials, will produce new surgical procedures and systems, including better organic and artificial replacement parts for human beings, and the use of unspecialized cells (stem cells) to augment or replace brain or body functions and structures. It also will spur development of sensor and neural prosthetics such as retinal implants for the eye, cochlear implants for the ear, or bypasses of spinal or other nerve damage." *Id.*

[347] *Id.* (capitalization omitted). Therapy and drug developments "will cure some enduring diseases and counter trends in antibiotic resistence." Deeper understanding of how particular diseases affect people with specific genetic characteristics will facilitate the development and prescription of custom drugs." *Id.*

[348] *Id.* (capitalization omitted). Genetic modification "despite continuing technological and cultural barriers . . . will improve the engineering of organisms to increase food production and quality, broaden the scale of bio-manufacturing, and provide cures for certain genetic diseases. Cloning will be used for such applications as livestock production. Despite cultural and political concerns, the use of genetically modified crops has great potential to dramatically improve the nutrition and health of many of the world's poorest people. *Id.*

[349] *Id.* DNA identification "will continue to improve law enforcement capabilities." *Id.*

[350] Hagen, *supra* note 30, at 28.

[351] *Id.*

[352] *See supra* notes 350-51 and accompanying text.

global economy and globalization,[353] national and international governance,[354] and conflict management.[355]

Sixth, Congressional failure to allow payment of America's share to the Global Environment Facility — currently approximately $200 million in arrears — and the concomitant attachment of conditions to various appropriations "have had the effect of hindering rather than facilitating the conduct of U.S. environmental diplomacy."[356]

Seventh, by failing to ratify and implement many of the major international environmental agreements — including the "Basel Convention on the Transboundary Movements of Hazardous Wastes, the Convention on Biological Diversity (including the recently concluded Biosafety Protocol), and the Law of the Sea Convention"[357] — America's "ability to influence their implementation"[358] has been lessened, and America's "credibility in negotiations now under way on new [international] agreements and policy initiatives"[359] has been compromised.

Eighth, an overwhelming percentage of Americans support their federal government's active involvement in world affairs, in general, and in international environmental agreements, in particular.[360]

Ninth, American engagement with the emerging international systems of biodiversity and biotechnology governance can reap real economic benefits for American businesses since evolving international standards "serve to harmonize environmental policies, priorities, and standards across borders, thereby allowing companies to pursue regional and global business plans and compliance strategies with greater cer-

---

[353] GLOBAL TRENDS 2015, *supra* note 338, at 34-38.

[354] *Id.* at 38-48.

[355] *Id.* at 49-56.

[356] Hagen, *supra* note 30, at 28.

[357] *Id.* at 29.

[358] *Id.* Indeed, after an environmental treaty is in place, "the United States must participate in numerous conferences and meetings of the parties as well as technical group meetings in order to protect U.S. interests — regardless of whether the United States becomes a party to the agreement." *Id.* at 32.

[359] *Id.* at 29.

[360] *Id.* "73 percent of Americans agreed with the statement 'I regard myself as a citizen of the world as well as a citizen of the United States'" and "[a] whopping 77 percent felt that there should be more international agreements addressing environmental concerns." *Id.*

tainty."[361] Specifically, "[b]iotechnology companies . . . stand to benefit significantly from the timely implementation of the recently concluded Biosafety Protocol to the Convention on Biological Diversity governing transboundary shipments of living modified organisms, or LMOs."[362] This is so because "[t]he protocol establishes new Advanced Informed Agreements procedures and risk assessment and management requirements for cross-border shipments of LMOs,"[363] while also "establish[ing] a framework and methodology for governments to follow in evaluating and approving the commercial use of LMOs at a time when most governments have just begun the process"[364] by starting to regulate "the introduction of genetically altered seeds, plants, commodities and other products."[365]

Tenth, "[a]s evidenced by the [World Trade Organization] WTO ministerial meeting in Seattle [in 1999], future trade liberalization,"[366] which is in the interest of the United States, "may be linked to further accommodation and labor concerns in current and future trade accords."[367]

Eleventh, "as the foremost power and most advanced nation [in the world] in environmental protection,"[368] the United States has a moral duty to actively participate as a party in shaping the evolving global biodiversity and biotechnology regime, rather than, as currently is the case, being involved in a secondary role as a non-party observer or advisor at international meetings and policy discussions on these subjects.[369]

Twelfth, from a purely selfish perspective, the United States cannot solve its endangered species and biodiversity problems alone. Effectively addressing these problems — as well as other domestic environmental problems — requires

---

[361] *Id.*
[362] *Id.*
[363] *Id.*
[364] *Id.*
[365] *Id.*
[366] *Id.* at 33.
[367] *Id.*
[368] J. William Futrell & Linda Breggin, *Re-Engagement,* 17 ENVTL. F. 40 (2000).
[369] *Id.* In general, "[w]hether the United States can maintain leadership in [the globalization debate] while remaining outside so many treaty regimes is an important question. A growing perception in Europe and elsewhere is that the United States is powerful, but an irresponsible power." *Id.* at 41 (internal quotation marks omitted).

American cooperation with countries along its borders, in its region, and around the planet.[370]

B. THE STRATEGIC WILDCARD IMPLICATIONS OF THE TERRORIST ATTACKS OF SEPTEMBER 11, 2001

The United States is still absorbing the full meaning of the terrorist attacks of September 11, 2001 and the related anthrax incidents.[371] Beyond the enormous tragedies in loss to human life, complete or partial destruction of landmark American buildings, wrenching economic dislocations and general malaise and increased anxiety, the events of September 2001 have the potential of catalyzing a fundamental strategic shift in global affairs — including America's active involvement and ratification of the CBD, on the one hand, or America's further retreat and isolation from global biodiversity and biotechnology governance, on the other hand.

In broad strategic terms, the pre-9/11 global era might be viewed as exhibiting characteristics that the *Global Trends 2015* report described as a trajectory leading to a "pernicious globalization" scenario[372] or a "regional competition" scenario.[373] The *pernicious globalization scenario* is noted for the thriving of global elites, "but the majority of the world's population fails to benefit from globalization."[374] Moreover, under this scenario, "[p]opulation growth and resource scarcities place heavy burdens on many developing countries, and migration becomes a major source of interstate tension,"[375] while "[t]echnologies not only fail to address the problems of developing countries but also are exploited by negative and illicit net-

---

[370] *Id.* at 44.

[371] *See, e.g.,* Serge Schmemann, *A Growing List of Foes Now Suddenly Friends,* N.Y. TIMES, Oct. 5, 2001 at B3 (discussing the immediate ad radical shift in American relations with the rest of the world (from the terrorist attacks). On the possible implications of the terrorist attacks for environmental security, *see* Michael Penders & William L. Thomas, *The Specter of Ecoterror: Rethinking Environmental Security After 9/11,* NAT. RESOURCES & ENV'T, forthcoming January 2002).

[372] GLOBAL TRENDS 2015, *supra* note 338, at 83-4.

[373] *Id.* at 355. For another look at potential global scenarios focusing on environmental concerns, *see generally* ALLEN HAMMOND, WHICH WORLD?: SCENARIOS FOR THE 21ST CENTURY (1998).

[374] GLOBAL TRENDS 2015, *supra* note 338, at 83.

[375] *Id.* (original emphasis omitted).

works and incorporated into destabilizing weapons."[376] Moreover, under the *pernicious globalization scenario*, "[t]he global economy splits into three: growth continues in developed countries; many developing countries experience low or negative per capita growth, resulting in a growing gap with the developed world; and the illicit economy grows dramatically,"[377] as "[g]overnance and political leadership are weak at both the national and international levels,"[378] while "[i]nternational conflicts increase, fueled by frustrated expectations, inequities, and heightened communal tensions"[379] and weapons of mass destruction "proliferate."[380] The *regional competition scenario* is characterized by "regional identities sharpen[ing] in Europe, Asia and the Americas, driven by growing political resistance in Europe and East Asia to U.S. global preponderance and U.S.-driven globalization and each region's increasing preoccupation with its own economic and political priorities."[381] Moreover, under the *regional competition scenario*, "[t]here is an uneven diffusion of technologies, reflecting differing regional concepts of intellectual property and attitudes toward biotechnology,"[382] while "[r]egional economic integration in trade and finance increases, resulting in both fairly high levels of economic growth and rising regional competition"[383] and "[b]oth the state and institutions of regional governance thrive in major developed and emerging market countries, as governments recognize the need to resolve pressing regional problems and shift responsibilities from global to regional institutions."[384]

In overarching strategic terms, it is conceivable that the seismic political, economic and cultural shock-waves of September 11th and its aftermath on the needs and priorities of the

---

[376] *Id.* (original emphasis omitted).
[377] *Id.* at 83-4 (original emphasis omitted).
[378] *Id.* at 84 (original emphasis omitted).
[379] *Id.* (original emphasis omitted).
[380] *Id.*
[381] *Id.*
[382] *Id.* (original emphasis omitted).
[383] *Id.* (original emphasis omitted).
[384] *Id.* (original emphasis omitted). The regional competition scenario is further characterized by the following: "Given the preoccupation of the three major regions with their own concerns, countries outside these regions in Sub-Saharan Africa, the Middle East and Central and South Asia have few places to turn for resources or political support. Military conflict among and within the three major regions does not materialize, but internal conflicts increase in and around other countries left behind." *Id.* (original emphasis omitted).

United States to prevent and root out terrorism, while concomitantly leading an international coalition of nations to destroy the Taliban, Osama bin Laden and Al Qaeda and eventually to control other terrorist groups around the planet, could cause a shift from the present global scenarios of *pernicious globalization*[385] or *regional competition*[386] to either (1) a more benign "inclusive globalization" scenario[387] or (2) a more malignant "post-polar world" scenario.[388]

Under a more benign *inclusive globalization scenario*, catalyzed by the events of September 11th and its aftermath, "[a] virtuous circle develops among technology, economic growth, demographic factors, and effective governance, which enables a majority of the world's people to benefit from globalization."[389] Under this scenario, "[t]echnological development and diffusion — in some cases triggered by severe environmental or health crises — are utilized to grapple effectively with some problems of the developing world,"[390] "[r]obust global economic growth — spurred by a strong policy consensus on economic liberalization — diffuses wealth widely and mitigates many demographic and resource problems."[391] Moreover, under the *inclusive globalization scenario*, "[g]overnance is effective at both the national and international levels"[392] and "[i]n many countries, the state's role shrinks, as its functions are privatized or performed by public-private partnerships, while global cooperation intensifies on many issues through a variety of international arrangements,"[393] while "[c]onflict is minimal within and among states benefiting from globalization."[394]

However, under a more malignant *post-polar world scenario*, triggered by the September 11th terrorist attacks and

---

[385] *See supra* notes 374-80 and accompanying text.
[386] *See supra* notes 381-84 and accompanying text.
[387] GLOBAL TRENDS 2015, *supra* note 338, at 83.
[388] *Id.* at 84.
[389] *Id.* at 83.
[390] *Id.* (original emphasis omitted).
[391] *Id.* (original emphasis omitted).
[392] *Id.* (original emphasis omitted).
[393] *Id.*
[394] *Id.* (original emphasis omitted). The inclusive globalization scenario is further characterized by the following: "A minority of the world's people in Sub-Saharan Africa, the Middle East, Central and South Asia, and the Andean region — do not benefit from these positive changes, and internal conflicts persist in and around the countries left behind." *Id.*

their aftermath, in conjunction with American reaction, "U.S. domestic preoccupation increases as the U.S. economy slows, then stagnates,"[395] while "[e]conomic and political tensions with Europe grow, the U.S.-European alliance deteriorates as the United States withdraws its troops, and Europe turns inward, relying on its own regional institutions."[396] Furthermore, under this unfortunate scenario, "national governance crises creates instability in Latin America, particularly in Columbia, Cuba, Mexico, and Panama, forcing the United States to concentrate on the region;"[397] "Indonesia also faces internal crisis and risks disintegration, prompting China to provide the bulk of an ad hoc peacekeeping force;"[398] "[o]therwise, Asia is generally prosperous and stable, permitting the United States to focus elsewhere."[399] Moreover, pursuant to the *post-polar world scenario*, "these geostrategic shifts ignite longstanding national rivalries among the Asian powers, triggering increased military preparations and hitherto dormant or covert [weapons of mass destruction] programs,"[400] while "[r]egional and global institutions prove irrelevant" to the evolving global conflict situation,[401] and "[g]iven the priorities of Asia, the Americas, and Europe, countries outside these regions are marginalized, with virtually no sources of political or financial support."[402] By implication, under this scenario international environmental governance, like the CBD, withers and dies.

C. SOME PRAGMATIC SUGGESTIONS

What is to be done by those who would nudge the United States toward a more engaging, pro-active, environmental diplomatic posture — with the hope that America would eventually ratify the CBD, thereby becoming a party to the Convention? In the spirit of pragmatic reasoning that acknowledges

---

[395] *Id.* (original emphasis omitted).

[396] *Id.*

[397] *Id.* (original emphasis omitted).

[398] *Id.*

[399] *Id.* "Korea's normalization and *de facto* unification proceed, China and Japan provide the bulk of external financial support to Korean unification, and the United States begins withdrawing its troops from Korea and Japan." *Id.*

[400] *Id.*

[401] *Id.*

[402] *Id.*

the wisdom of Shakespeare's vision that "[t]here is nothing either good or bad, but thinking makes it so,"[403] and the pragmatic philosopher who "is a debunker of metaphysical and other occult entities, of philosophical foundations such as the real and the ideal, and of essentialist concepts,"[404] I offer the following succinct suggestions.

1. Address the Property Rights Concerns of American Critics of Government Overreaching

The administration and Congress should rethink and reform the Endangered Species Act to ameliorate its impact on American private property owners by expanding the scope of sensible, non-coercive habitat conservation plans and by increasing just compensation funding.[405]

2. Reassess the Current Sprawling Structure of International Environmental Law and Institutions

"The United States should lead an international assessment of the current global and regional structure of international environmental law and supporting institutions" with an eye toward consolidating and streamlining the multiple "existing convention secretariats under a better-organized UNEP or perhaps a new World Environmental Organization."[406]

---

[403] WILLIAM SHAKESPEARE, Hamlet to Rosencranz in *Hamlet*, Act II, sc. ii, ll. 251-252.

[404] RICHARD A. POSNER, OVERCOMING LAW 288 (1995). Posner contends, in this regard, that "[i]t is a lesson particularly worth emphasizing [that] . . . legal reasoning is [unpragmatically] a bastion of dichotomous classifications that oversimplify social reality and confuse local, transient, sometimes uninformed public opinion with durable . . . reality." *Id.*

[405] *See generally,* A.D. Tarlock, *Local Government Protection of Biodiversity: What is its Niche?,* 60 U. CHI. L. REV. 555 (1993) (discussing the scientific bases of biodiversity and the legal issues of takings and habitat conservation plans).

[406] Hagen, *supra* note 30, at 37.

3. Reform the Endangered Species Act to Concentrate on Ecosystems and Synoptic Biodiversity Protection While Engaging in Ongoing Diplomacy to Amend the CBD to Make its Norms Come Closer to the Reformed American Standard

The current single species/costs-be-damned approach of the Endangered Species Act is outmoded and ripe for reform. The administration and Congress should engage in legislative efforts to overhaul the Endangered Species Act by focusing its domestic legal protections and programs on ecosystems and biodiversity as a whole, while instituting a triage system to respond to the current American state of biodiversity loss in a cost-efficient manner.[407] Concomitantly, the administration and selective members of Congress should join in initiating diplomatic overtures to the CBD Secretariat and key national governments to propose an amended CBD that would resemble the reformed American standard, with diplomatic advocacy that a more rational, cost-effective international approach to biodiversity protection would have a better prospect of working on the global level and of being ratified by the United States Senate.[408]

4. Expand and Upgrade the Funding for American International Environmental Diplomacy

As cogently argued by Paul E. Hagen, "[t]he dramatic increase in workload that has accompanied the recent expansion of international environmental treaty-making requires that both the Executive Branch and Congress increase the resources"[409] of federal agencies responsible for environmental diplomacy, in general, and biodiversity protection and biotechnology regulation in particular. Key agencies, in this regard, are the State Department, EPA, U.S. Trade Representative, and the Department of the Interior.[410]

---

[407] *See generally* James Drozdowski, *Saving an Endangered Act: The Case for a Biodiversity Approach to ESA Conservation Efforts,* 45 CASE WEST. L. REV. 553 (1995) (urging a concentration on ecosystems and biodiversity as a whole and a move away from the single-species approach; counseling a "triage system" to respond to the current state of biodiversity loss in a cost-efficient manner).

[408] Hagen, *supra* note 30, at 37.

[409] *Id.* at 36-38.

[410] *Id. See also* Futrell & Breggin, *supra* note 368, at 41 (reporting comments of

5. Champion Direct Approaches to Achieve the Preservation of Biodiversity While De-emphasizing Indirect Approaches

As demonstrated in the recent work of economists Paul J. Ferraro and R. David Simpson, "[m]ounting evidence suggests . . . that direct conservation measures [as opposed to indirect approaches] are generally most effective"[411] in preserving biodiversity Diplomacy and , therefore, should champion "[d]irect approaches,"[412] that "pay for land to be protected,"[413] such as purchases or leases,[414] easements,[415] and concessions,[416] over "[i]ndirect approaches"[417] that "support economic activities that yield habitat protection as a by-product."[418]

---

former Deputy Assistant Secretary of State for the Environment Brooks B. Yeager that in his "division of the State Department", as of 2000, "we are dealing with five times the number of [international environmental] agreements, bilateral engagements and treaties, and negotiations and technical issues with the same size staff we had a decade ago").

[411] Paul J. Ferraro & R. David Simpson, *Cost-Effective Cost Conservation: A Review of What Works to Preserve Biodiversity,* RESOURCES 17, 20 (Issue 143, Spring 2001).

[412] *Id.* at 18.

[413] *Id.*

[414] *Id.* "Land is acquired for parks or reserves." *Id.*

[415] *Id.* "Owners agree to restrict land use in exchange for a payment." *Id.*

[416] *Id.* "Conservation organizations bid against timber companies or developers [for example] for the right to use government-owned land." *Id.*

[417] *Id.* "Indirect approaches support economic activities that yield habitat protection as a by-product." *Id.* As noted by the authors:

> Ecofriendly enterprises have proved profitable in may parts of the world . . . so subsidies are not always required. Many millions, if not billions, of dollars have been devoted to assisting ecofriendly enterprises [on an indirect basis], however. The wisdom of these [indirect] subsidies is suspect for a number of reasons.
>
> First, such subsidies are generally an inefficient way of accomplishing a *conservation* objective. Consider two options facing an organization that wishes to preserve a certain area of land. First, it could pay for land conservation. If an ecofriendly enterprise can profitably be operated on the land, the conservation organization could sell a concession to operate the enterprise. The *net* cost of conservation under this option would be the cost of buying the land less the income received from the concession.
>
> Under the second option, the conservation donor would subsidize the ecoentrepreneur by, for example, investing in hotel facilities to be used by tourists. The ecoentrepreneur would then acquire land for the ecotourism facility. The conservation donor may be able to motivate the protection of more land by providing a higher subsidy. The conservation organization's net cost of conservation under this option would be the value of the subsidy it offers.
>
> The second approach is more expensive. The basic principle at work is that "you get what you pay for," and the cheapest way to get something you want is to pay for *it,* rather than things indirectly related to it. While it is extremely difficult to estimate reliably the earnings of ecofriendly projects, we have been able to construct a number of examples that demonstrate dramatic differences in costs under the alternative approaches. The cost of the direct approach can be no greater

6. Provide Greater Attention to and Emphasis to Nonindigenous Species' Impact on Biodiversity

The Harvard biologist, E.O. Wilson in his 1992 book, *The Diversity of Life,* describes introduction of alien species and diseases carried by alien species as among the most significant of the "mindless horsemen of the environmental apocalypse."[419] Indeed, nonindigenous species represent the second most common cause of endangerment in the United States."[420] The de-

---

than the forgone earnings that would have arisen from land conversion. If any earnings can be generated from ecofriendly activities, they can be subtracted from the cost of protection in computing the net cost of conservation. The cost of the indirect approach can, on the other hand, be several times higher than the cost of outright purchase or lease.

A number of other considerations also weigh against indirect approaches.

There is no guarantee that subsidizing ecofriendly activities will motivate more conservation. Organizations offering such subsidies often assume their effects will be positive, but if, for example, nicer hotel facilities induce would-be ecotourists to spend more time in their rooms than outdoors, the investments would prove counterproductive.

Activities intended to be ecofriendly can have unintended consequences. Careless tourists may damage the sites they visit. Projects to commercialize local collection of forest products may induce overharvesting, or encourage local people to cultivate particular plants at the expense of their regions' broader diversity.

Integrated conservation and development projects may fail to achieve development objectives. Many developing nations would be better served by broader investments. Spending on public health or primary education is likely to pay greater dividends than training specialists in taxonomy or hotel management.

Id. at 18-19.

[418] *Id.* at 18. Examples of indirect approaches include:

Payments to encourage land use activities that yield habitat protection as a by-product. Examples include:

Subsidies to ecofriendly commercial ventures. Subsidies assist ecotourism, bioprospecting, and nontimber forest product entrepreneurs with facility construction, staff training, or marketing and distribution.

Payments for other ecosystem services. Payments for carbon sequestration, flood and erosion protection, or water purification provide incentives to maintain the habitats that both provide these services and shelter biodiversity.

Payments to encourage economic activities that direct human resources away from activities that degrade habitats. This "conservation by distraction" approach provides assistance for activities such as intensive agriculture or off-farm employment. These activities may not be eco-friendly, but their expansion can reduce local incentives to exploit native ecosystems.

Id.

[419] *See* EDWARD O. WILSON, THE DIVERSITY OF LIFE 253 (1992).

[420] Michael J. Bean, *Strategies for Biodiversity Protection, in* PRECIOUS HERITAGE: THE STATUS OF BIODIVERSITY IN THE U. S. 272 (eds. Bruce A. Stein, Lynn S. Kutner, Jonathan S. Adams 2000). *See* Lyle Glowka, *Bioprospecting, Alien Invasive Species, and Hydrothermal Vents: Three Emerging Legal Issues in the Conservation and Sustainable Use of Biodiversity,* 13 TUL. ENVTL. L.J. 329 (2000).

tails of this biodiversity endangerment are complicated. As explained in one recent authoritative source:

> The release of nonindigenous organisms is sometimes deliberate but is more often accidental or unintended. The pathways for such introduction are myriad. They include ballast water in ocean going vessels, which take on water in one area and discharge it in another, releasing countless non-native organisms in the process; nursery stock carrying pests and other organisms in the soil surrounding the roots or on or in the plant itself; aquaculture facilities from which nonindigenous species escape as a result of storms, facility failures, or other reasons; and imported logs, fruits, vegetables, fish and shellfish from throughout the world.[421]

As part of its own future domestic regulatory strategy and in its ongoing international environmental diplomacy efforts, therefore, the United States should concentrate "on preventing new [species] introductions, detecting and eradicating new infestations as early as possible, and controlling and managing any well-established invasions,"[422] while seeking more effective invasive species policies. For example, "[i]n the United States deliberate importing of known harmful species has long been prohibited, [yet] . . . [t]his prohibited list approach . . . is ineffective, since the potential for injury is often discovered only after a species has become established and begun causing damage."[423] But, "[a] more sensible approach would be to consider any foreign species potentially harmful unless otherwise indicated"[424] and "[i]n this regard, an approved list identifying these species known or suspected to be ecologically benign would be a better basis for making importation decisions."[425] Such international preventative measures, however, need to be skillfully integrated and reconciled with rapidly emerging globalization trends and World Trade Organization (WTO) free trade rules of international commerce.

---

[421] *Id.*
[422] *Id.*
[423] *Id.*
[424] *Id.*
[425] *Id.*

7. Refine and Improve Currencies and Commodification of Endangered Species Habitat Protection through Environmental Trading Markets

The United States should try to refine and improve environmental trading markets (ETMs) for endangered species habitat protection under both its own domestic laws as well as part of its ongoing international environmental diplomacy under the CBD. Recent scholarship has produced promising interdisciplinary ideas for perfecting ETMs as a general tool for environmental protection as well as a specific tool for biodiversity protection.[426]

IV. CONCLUSION

The American response to the CBD has been characterized by four discrete periods of policy reaction: (1) expressing concern about the problem of global biodiversity protection, from 1989-90;[427] (2) expressing disagreement over the advisability of the United States committing to sign a multilateral biodiversity convention, from 1991-92;[428] (3) debating ratification of the 1992 Rio text of the CBD from 1993-94,[429] and (4) a long and relatively inactive period of resisting ratification from 1995 to the present.[430]

While understanding America's response to the CBD is complicated, four interrelated themes help to put the United States' legal and policy responses to the Convention in perspective: (1) institutional tension between the President and the Congress concerning foreign affairs;[431] (2) conservative concern about the emerging configuration of international environmental law;[432] (3) American corporate interest in maximizing

---

[426] *See* James Salzman & J.B. Ruhl, *Currencies and Commodification of Environmental Law*, 53 STAN L. REV. 607 (2000); James Salzman, Barton H. Thompson, Jr. & Gretchen C. Daily, *Protecting Ecosystem Services: Science, Economics and Law*, 20 STAN. ENVTL. L. REV. 309 (2001); James Boyd, Dennis King & Lisa A. Wainger, *Compensating for Lost Ecosystem Services: The Need for Benefit-Based Transfer Ratios and Restoration Criteria*, 20 STAN. ENVTL. L. REV. 393 (2001).

[427] *See supra* notes 31-57 and accompanying text.

[428] *See supra* notes 58-153 and accompanying text.

[429] *See supra* notes 154-227 and accompanying text.

[430] *See supra* notes 228-40 and accompanying text.

[431] *See supra* notes 245-84 and accompanying text.

[432] *See supra* notes 285-307 and accompanying text.

biotechnology profits;[433] and (4) complexities in resolving international economic and physical spillovers through legal policy instruments.[434]

In looking toward the future, American policymakers should be mindful of three broad policy concerns relating to the United States' participation in the CBD: (1) the importance of American leadership and engagement in global affairs;[435] (2) the strategic wildcard implications of the terrorist attacks of September 11, 2001;[436] and (3) the need to focus on pragmatic and effective biodiversity implementation issues.[437]

---

[433] *See supra* notes 308-23 and accompanying text.
[434] *See supra* notes 324-25 and accompanying text.
[435] *See supra* notes 329-70 and accompanying text.
[436] *See supra* notes 371-402 and accompanying text.
[437] *See supra* notes 403-426 and accompanying text.

ARTICLE

THE BIODIVERSITY RIGHTS OF DEVELOPING NATIONS: A PERSPECTIVE FROM INDIA

SHALINI BHUTANI[1] & ASHISH KOTHARI[2]

I. INTRODUCTION*

The journey from the 1992 United Nations Convention on Environment and Development in Rio de Janeiro, Brazil (UNCED or Rio) to the upcoming 2002 World Summit on Sustainable Development Johannesburg, South Africa (WSSD or Johannesburg) has been long and difficult. At this point, it may serve well to catch one's breath to traverse through the decade and capture the milestones and the roadblocks along the way. This assessment provides an opportunity to review the speed of things, as well as to consider whether a change of course to a new direction is required. With this purpose, this article proposes to assess the road traveled from UNCED from the perspective of the biodiversity rights of developing nations, which

---

[1] Ms.Shalini Bhutani holds a law degree from the Faculty of Law, University of Delhi, India. She is currently Regional Programme Officer (Asia) of Genetic Resources Action International (GRAIN), though the views expressed here are her own. She has been associated with public interest environment litigation in India and has worked in the development sector for over five years.

[2] Dr.Ashish Kothari is a founder member of the 22-year old Indian environmental action group, Kalpavriksh. He is currently coordinator of the Technical and Policy Core Group formulating India's National Biodiversity Strategy and Action Plan, and was earlier on the faculty of the Indian Institute of Public Administration.

* Authors' Citations in this article do not conform to Blue Book standards.

constitute four-fifths of the world's population.[3] The focus of this article's assessment will be the 1992 United Nations Convention on Biological Diversity (CBD or Biodiversity Convention) that was negotiated at Rio.

Principle 1 of the Declaration on Environment and Development adopted at UNCED (Rio Declaration) provides: "Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature."[4] This article considers these general provisions from the specific viewpoint of India, a megabiodiverse country. The maintenance of the fine balance between conservation and economic development is one of India's major concerns. Like many developing nations, India is home to many diverse ecosystems, species and genes, as well as diverse cultures. With its population having crossed the one billion mark (the second country after China to do so), the country's cultural diversity is stupendous: 4635 distinct ethnic communities, 325 languages belonging to twelve language families, six 'major' religions and dozens of smaller independent faiths, three racially distinct resident populations, and ways of life ranging from ancient hunter-gatherer to modern urbanism.[5] Thereby, in itself, India is representative of the range of diversity, both biological and cultural, found in many developing countries.

In articulating the Indian experience with the implementation of the CBD, this article will document the several changes in law and policy that have been initiated or are in the process of being put in to place at the domestic level since the country ratified the Convention in February 1994, as well as the people's movements for biodiversity rights. It will also review India's positions through the negotiating process of the CBD. At the national level there have been legislative changes including the 1999 Biological Diversity Bill,[6] the 2001 Plant Varieties Protection and Farmers' Rights Act,[7] and the National Biodi-

---

[3] *Available at:* http://www.geohive.com/charts/pop_now.php.

[4] 31 ILM 874 (1992).

[5] Singh, K.S., *People of India: An Introduction.* Anthropological Survey of India, Laurens and Co., Calcutta (1992).

[6] Bill No.93 of 2000.

[7] Act 53 of 2001.

versity Strategy and Action Plan[8]. There have been amendments to India's Constitution that seek to decentralize democratic decision-making on biological resources. Through such legislative and constitutional measures India has strengthened the rights of its people and thus asserted its biodiversity rights. All this has run parallel to the structural adjustment programmes and economic reforms initiated in 1991 in response to conditions imposed by the International Monetary Fund (IMF).[9] Post-1995 entry into the World Trade Organization (WTO) has posed newer challenges to India and other developing nations with far-reaching ramifications on their biodiversity rights. The interface of the WTO and CBD, particularly in regard to intellectual property rights, will be examined from the Indian perspective.

At the outset, it may be said that developing nations, typically characterized by their low per capita incomes and defined as those that are attempting to improve their positions by industrialization, may well have chosen an alternative path of development if they perhaps had the right to do so. With freedom to set their own policies and priorities they perhaps would not have hastened themselves into changing their laws and policies and with it the very rubric of their polities in the name of conservation. These are the realities that international law and law-making must acknowledge.

Indian civilization has long recognized the intrinsic right of nature to exist. This recognition and respect is deeply interwoven with the cultural and material dependence of the majority of its people on biodiversity. As such, in India the ethical, economic, social, and cultural aspects of biodiversity are hard to separate.

The Preamble of the CBD explicitly recognizes that "economic and social development and poverty eradication are the first and overriding priorities of developing countries."[10] In developing countries such as India, biodiversity is not simply

---

[8] The National Biodiversity Strategy and Action Plan (NBSAP) of India is currently in the process of being formulated. A project of the Union Ministry of Environment and Forest (MOEF), NBSAP aims to produce a series of planning documents dealing with India's biodiversity as per the objectives of the CBD.

[9] *License to Kill? How the Unholy Trinity – the World Bank, the International Monetary Fund and the World Trade Organisation are killing livelihoods, environment and democracy in India*, RFSTE (March 2000).

[10] Preambular paragraph.

about the variability among living organisms, it is about life and livelihoods. In so much as international and national rules and regulations influence that, these rules and regulations are also about life and livelihoods.

Since UNCED in 1992, several legal documents, comprising both soft and hard international law, dealing with biodiversity have been generated. Apart from strictly environmental agreements, trade agreements also have significantly influenced the biodiversity debate. However, in the midst of these multiple legal texts the CBD serves as the umbrella convention for biodiversity issues, as the auspices in and under which biodiversity in all its dimensions is best dealt with and has a central place. Linked with all the thematic work programmes of CBD are other multilateral environmental agreements (MEAs).[11] This article will explore the interface of CBD with other multilateral environmental and also economic agreements in studying the biodiversity rights of developing nations.

What then are the biodiversity rights of developing nations? Over time, how have their rights developed as sovereign states, as source countries of biological resources and local communities/peoples reliant on and with special knowledge of biological resources? As these questions suggest, biodiversity rights in fact comprise a bundle of several rights involving the ability of developing countries to have access to and control biological resources themselves, as well as the finance, science, technology and markets related to these resources. In each of these areas, international law and international politics plays an important role.

The article will flag those provisions of the law that disenfranchise developing nations and their peoples from their rights vis-à-vis biodiversity. While sifting through these provisions, it will also examine how far the developed nations have gone in the "burden-sharing" of conservation of biological resources. Because newer technologies pose newer challenges to biodiversity conservation, the intrinsic link between trade and biodiversity cannot be overstated. It has been a challenge to deal with international trade rules and regulations, especially with non-state entities like the WTO. The WTO's agenda is

[11] The Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar) 1971, XI ILM 963 (1972).

dictated largely by corporate interests in developed countries such as the United States (U.S.), which have not demonstrated a commitment to the conservation of biodiversity. This lack of commitment is similarly reflected in other international agreements such as the CBD's Biosafety Protocol[12] and the United Nations (U.N.) Framework Convention on Climate Change's 1997 Kyoto Protocol.[13]

The WTO trade agenda has only furthered the commodification and privatization of biodiversity resources. Together with this commodification has been espoused the notion that if developing countries do have rights, they can be negotiated and from this premise then the argument proceeds to - on what terms? It is critical then to identify the non-negotiable aspects of biodiversity rights from the perspective of developing countries. This article critiques the notion that these rights too can be bought and sold and brought under the realm of international trade as if nothing is above that. This apparent conflict of perspective between the developed and the developing most visibly manifests itself in the area of intellectual property rights (IPRs). For instance, the 1995 WTO Agreement on Trade Related Aspects of Intellectual Property (TRIPs)[14] provides for the international recognition and enforceability of private patents for micro-organisms and life itself, and legitimises the piracy of indigenous biodiversity-related knowledge of local communities of developing nations.[15] Contrary to the principles suggested in TRIPs, this article maintains that the rights of developing countries should entitle them to decide whether and how they would want to conserve/use their biological resources and not whether and how this conservation guarantees a continued supply of these resources to corporate interests in the developed world.

Inevitably the article embarks on a rights discourse. As provided in the Preamble of the Stockholm Declaration, adopted at the 1972 Stockholm United Nations Conference on

---

[12] Cartagena Protocol on Biosafety to the Convention on Biological Diversity *available at:* http://www.biodiv.org/biosafety/protocol.asp.

[13] Kyoto Protocol, United Nations Framework Convention on Climatic Change, 37 ILM 22 (1998) *available at:* http://www.unfccc.de/resource/docs/convkp/kpeng.html.

[14] Agreement on Trade-Related Aspects of Intellectual Property Rights, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organisation ("Trips"), Annex 1C, 33 I.L.M. 1197 (1994).

[15] Article 27 of TRIPs on *Patentable Subject Matter*. *Id.* at Art. 27.

the Human Environment (UNCHE or Stockholm Convention), the environment is "essential to . . . the enjoyment of human rights."[16] Principle 3 of the Rio Declaration similarly provides that "right to development must be fulfilled so as to suitably meet developmental and environmental needs of present and future generations."[17]

The CBD reiterates the sovereign rights of states on their biological resources. Indeed rights cannot be divorced from their corresponding duties. In the context of international law this raises basic questions about the relationships between nation states. In treaty-making, wherein the express consent of contracting nation states is presumed, at the very source then in acknowledging that a nation has the right to so give consent lies the acknowledgement that the nation has equal rights and is sovereign. But, ironically, this equation changes in the realm of implementation where issues other than international norms of treaty-making take over. Rights of nation states derived from multilateral agreements lie in the supposed consensual nature of those agreements. This also goes to the core of the issue of compliance. If negotiated on seemingly unfair terms, the equal rights of nations would never be realized in practice.

Compliance with international agreements also requires the involvement of the people within the nation state. Although the implementation of international law may seem to be top-down process, at the national level the reverse often holds true. The ability of a national state to comply with international biodiversity agreements depends on how the effectively the domestic government can engage and internalize peoples' participation in biodiversity management.

While measures outside of and beyond law, to conserve biodiversity and biodiversity-related rights and preserve lives and livelihoods linked with them are important, it is crucial that existing spaces in national and international law for these rights are safeguarded and utilized. This article will identify those provisions of the Rio documents, particularly those in the CBD, which can be said as sources or positive rights.

---

[16] *Report on the UN Conference on the Human Environment,* UN Doc A/CONF.48/14, ILM 1416 (1972).

[17] The Rio Declaration on Environment and Development, *Principle 3:* The right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations.

Rules of international law have always been necessary for peaceful co-existence making possible interaction and communication between nation-states. A necessary corollary of that being non-interference in internal affairs of nation states.[18] But on a subject like biodiversity, international law has made significant inroads into the national law-making arena. This also reopens questions of sovereignty and the interrelationships between international and domestic law.

Are the biodiversity rights of developing nations beginning to look like the lesser rights of lesser peoples? Are then the rights of developing countries, designed to be trapped in the constant state of "developing" and never quite getting there?

Is it unrealistic to hope that the principles of equity and environmental justice can breathe life into the letter of the law that endeavors to secure rights to those hitherto marginalized? In maintaining this as the refrain, the article will explore how these principles can lead to creative interpretation and implementation of existing legal provisions, to ensure the rights of developing nations to choose their course of action so as to do justice to their peoples.

The potential of the CBD lies in the space (however limited it may seem) it can provide in the articulation of the concerns of the developing nations. This can then be optimized by so informing all the other multilateral environmental and economic agreements that it is concerned with. This is an ongoing process.

In addition, there are spaces within other international forums that are being increasingly used to further aid this process. The U.N. Sub-Commission on the Protection of Human Rights, for instance, under the general mandate provided by the U.N. Declaration of Human Rights, has raised concern regarding the impacts of IPRs on human rights and biodiversity.[19]

As we look beyond 2002, these are some of the questions that this article raises, for unless we raise the right questions we cannot begin to find the rights answers.

---

[18] See J.G.Starke QC *An Introduction to International Law*, Tenth Edition, May, 1989 Butterworth & Co. (Publishers) Ltd. pp 3-18.

[19] *Available at:* http://www.business-humanrights.org/UN-Sub-Commission.htm.

II. BIODIVERSITY NEEDS, PEOPLE'S NEEDS

India is one of the twelve megabiodiversity centres in the world.[20] Its living forms represent two of the major realms and three basic biomes of the world. The country is divided into 10 biogeographic regions: Trans-Himalayan, Himalayan, Indian Desert, Semi-Arid, Western Ghats, Deccan Peninsula, Gangetic Plains, North-East India, Islands and Coasts.[21] As diverse as its biological resources so are its people. As per the Provisional Population Results of the Census of India conducted in 2001 on March 1, 2001 the population of India stood at 1,027,015,247.[22] This makes India only the second country in the world after China to cross the one billion mark. More than half of India's populace is directly dependent on the natural resource base for its needs.

In India, as in many other cultures in Asia, all sentient beings for their living form are revered for the life they manifest. Several rituals of everyday life reflect this respect for other forms of life, for their natural beauty, or for the spiritual link provided between the human species and the natural world. These rituals, be it the worship of certain plants or animals as spiritual ancestors or the setting aside of parts of land, water or forests in the name of local deities, then become important as traditional conservation and management of biological resources. Thus, in countries such as India, conserving biodiversity is about conserving the diverse cultures that define the nation.

This brings us to the often contrasting worldviews of the developing countries and developed countries, which can translate into divergent interests between the two in international law of conservation and use of biological resources. For the developing countries the CBD is viewed primarily as a means to conserve and sustainable use biological resources. For the developed countries, however, the CBD is viewed primarily as a means to access and establish legal rights to biological re-

---

[20] *Implementation of Article 6 of the Convention on Biological Diversity in India* – National Report, MOEF (1998), *available at:* http://www.biodiv.org/doc/world/in/in-nr-01-en.pdf.

[21] *Id.*

[22] *Available at:* http://www.censusindia.net.

sources located in resource-rich developing countries.[23] These different views continue to define the debate today over the CBD, a debate that is centered on the issues of the agreement's access and benefit-sharing provisions of the Convention.

III. THE CBD AT 10

UNCED gave the international clarion call for "sustainable development." The purpose of the Conference, was to elaborate strategies and measures to halt and reverse the effects of environmental degradation in the context of strengthened national and international efforts to promote sustainable and environmentally sound development in all countries. Principle 1 of the Rio Declaration placed "human beings . . . at the centre of concerns for sustainable development." [24]

During and since UNCED, however, it has become clear that developed nations (often referred to as the "North") often perceive the issues of environment and development quite differently from developing nations (often referred to as the "South"). While the developed industrialized North came to UNCED to deal with climate, forests and endangered species, the South was still dealing with problems related to poverty and development.

UNCED resulted in the following international environmental agreements: the CBD,[25] the Rio Declaration,[26] the Framework Convention on Climate Change,[27] Agenda 21,[28] and

---

[23] The developed countries, particularly those actively involved in the negotiations of international trade rules, like the WTO, would rather have trade in bio-resources not burdened at least on their part by conservation measures, financial support for the same or transfer of technology obligations. The United States is one government that is reflective of this; in its *Declaration* on signature it expressly stated that "issues of serious concern in the United States have not been adequately addressed. . ." U.S. is yet to ratify the CBD.

[24] The Rio Declaration on Environment and Development, *Principle 1: Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature.*

[25] The Convention of Biological Diversity, adopted June 5, 1992, A/CONF.151/26, 31 ILM 818 (1992).

[26] Report of the United Nations Conference on Environment and Development Annex I A/CONF.151/26 (Vol. I) Aug. 12 1992.

[27] 31 ILM 848.

[28] The Report of the United Nations Conference on Environment and Development Annex II A/CONF.151/26 (Vol. I-III) Aug. 12, 1992.

the U.N. Statement of Forest Principles.[29] Although each of these agreement contained provisions addressing the particular poverty and development issues facing developing countries, many in the North still do not see the need for an economic and social transformation of how international environmental issues (such as the conservation of biodiversity) are handled. Of all the treaties negotiated at Rio, the CBD holds the greatest promise for ultimately helping to create such a transformation.

In 1997, at the U.N. Special Session of the General Assembly to Review and Appraise the Implementation of Agenda 21, it was acknowledged that five years after the UNCED the state of the global environment had continued to deteriorate and significant environmental problems remain deeply embedded in the socio-economic fabric of countries in all regions.[30] This assessment indicated that, in terms of the condition of the global environment, things were not on course and were in fact worsening. The Review noted:

> Both the Commission on Sustainable Development and the General Assembly have emphasized that in the review of Agenda 21 at the special session of the Assembly, there should be no attempt to renegotiate Agenda 21; rather, discussions should focus on the further implementation of Agenda 21 (General Assembly resolution 51/181). At its fourth session, the Commission on Sustainable Development highlighted a number of objectives for the special session to which the CBD can make a direct contribution. They were that the special session should promote the Rio commitments through concrete proposals for action and revitalize and energize commitments to the concept of sustainable development. It is evident from the present report that the CBD has begun to make a contribution to this by providing a legal basis for many policies of Agenda 21, which hitherto had been expressed only in an exhortatory non-binding fashion.[31]

---

[29] Non-legally binding authoritative statement of principles for a global consensus on the management, conservation and sustainable development of all types of forests [The Forest Principles] (1992) A/CONF.151/26 (Vol. III) Aug. 14, 1992.

[30] *See* http://www.un.org/esa/earthsummit.

[31] Preparations For The Special Session Of The General Assembly For The Purpose Of An Overall Review And Appraisal Of The Implementation Of Agenda 21, Implementation Of The Convention On Biological Diversity, Note By The Secretary-General; E/Cn.17/1997/11 dated Feb. 25, 1997

The Resolution adopted by the General Assembly *inter alia* expressly stated with reference to biodiversity:

> There remains an urgent need for the conservation and sustainable use of biological diversity and the fair and equitable sharing ofbenefits arising from the utilization of components of genetic resources. The threat to biodiversity stems mainly from habitat destruction, over-harvesting, pollution and the inappropriate introduction of foreign plants and animals.[32]

The causes for biodiversity loss recognized in the U.N. Resolution are the same causes of the growing crises of India's biodiversity. In its Status Report to the U.N. Commission on Sustainable Development, India stated that:

> . . . national action regarding conservation and sustainable use of biodiversity and equitable sharing of benefits arising out of the utilization of genetic resources demands appropriate actions on the part of international community.[33]

The international community would then have to respond accordingly. The principle of "common and differentiated responsibility" established at UNCED has not yet fully taken hold in the relations between Northern and Southern governments. In the words of the U.N. Secretary General, Mr. Kofi Annan:

> Ten years ago at the "Earth Summit" in Rio de Janeiro, Governments committed themselves to...a transformation, and to Agenda 21 as the comprehensive plan of action for getting there. But commitments alone have proven insufficient to the task. We have not yet fully integrated the economic, social and environmental pillars of development, nor have we made enough of a break with the unsustainable practices that have led to the current predicament.[34]

The Report of the U.N. Secretary General[35] on "Implementing Agenda 21", in its part F, dealing with *Sustainable man-*

---

[32] Resolution Adopted By The General Assembly, A/Res/S-19/2 dated Sept. 19, 1997

[33] *Available at:* http://www.un.org/esa/earthsummit/india-cp.htm

[34] *Available at:* http://www.johannesburgsummit.org/html/brochure/brochure12.pdf.

[35] E/CN.17/2002/PC.2/7 dated Dec. 19, 2001.

agement of ecosystems and biodiversity, articulates the range of activities required in the sector:

> The degradation of natural ecosystems may, in some cases, be moving towards critical thresholds beyond which natural resilience is destroyed and recovery becomes difficult or even impossible. A framework of principles for global stewardship is urgently needed to protect the Earth's environment while meeting the social and economic needs and aspirations of all countries and peoples. Commitments should be made and initiatives agreed upon to halt and reverse the current degradation of the natural environment by:
>
> • Improving indicators and data on land degradation and and improvement in order to assess and manage those processes and their impacts;
>
> • Defining intellectual property rights relating to biological resources in order to ensure that benefits derived from the use of genetic material are equitably shared;
>
> • Fully implementing the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities, which is currently hampered by the lack of funding and the need for large investments to address land-based sources of pollution;
>
> • Improving the management of marine and coastal protected areas and increasing their number since protected reserves (or no-take areas) have been shown to increase the diversity and productivity of marine organisms;
>
> • Integrating agriculture with other aspects of land management and ecosystem conservation in order to promote both environmental sustainability and agricultural production;
>
> • Improving policies and laws to allow for a more systematic approach to sustainable mountain development, addressing such issues as property rights, economic incentives, political empowerment and the preservation of cultural heritage in an integrated manner;
>
> • Resolving issues of illegal, unregulated and unreported fishing and overcapacity of fishing vessels;
>
> • Enhancing cooperation, coordination and synergies among international organizations and instruments related to for-

ests, in the framework of the Collaborative Partnership on Forests;

• Managing man-made and natural disaster risks, with an emphasis on pre-disaster preparedness, mitigation, vulnerability assessments, adaptation strategies and other measures to reduce human and economic losses.[36]

The task ahead at the 2002 WSSD in Johannesburg is to move the protection of developing nations' biodiversity rights beyond the paper protections of the CBD.

IV. BIODIVERSITY RIGHTS

Realizing the biodiversity rights of India and other like developing countries involves, among other things, breathing life into the fundamental principles of the CBD that recognize that states have sovereign control over the biological resources within their territory.[37] And in exercising such control the country and its people ought to have the freedom to decide the how and the why of the management of these very resources. In conjunction there are also other international instruments to be invoked to make real the very basic freedom to make one's own decisions.

This raises the interconnected issue of realization of the Right to Development. It would do well to recall the 1986 United Nations Declaration on the Right to Development (DRD),[38] which proclaims the Right to Development (RTD) as an inalienable human right. It places the human being as the central subject of development and emphasizes that the human person should be the active participant and beneficiary.[39] It stresses the right of peoples to self-determination, by virtue of which they have the right to freely determine their political status and to pursue their economic, social and cultural development. And in doing so, through its ten Articles, the Declaration imposes obligations on the States towards each other and towards their peoples. The Declaration also makes express provision for developing countries, emphasizing that "sustained

---

[36] *Id.*

[37] Preamble, Articles 3 & 6.

[38] Adopted by UN General Assembly resolution 41/128 of Dec. 4, 1986.

[39] Preamble Paragraphs and Article.

action is required to promote more rapid development of developing countries. As a complement to the efforts of developing countries, effective international co-operation is essential in providing these countries with appropriate means and facilities to foster their comprehensive development."[40] Similarly, in 1988 the U.N. Economic and Social Council's Commission on Human Rights established an Open-Ended Working Group on the Right to Development[41] to continue to monitor and review progress made in the promotion and implementation of the right to development.

The RTD and its ongoing work finds increasing support from developing countries in a time and age where the international economic order is fast placing limits to how developing countries can manage their biological resources.

As per the 1988 DRD, the promotion of genuine participation in society is an essential part of a rights-based approach to development.[42] Participation is a clear manifestation of the indivisibility of rights. The right to participation is therefore central to the realization of the 'Right to Development.' Without a genuine and meaningful participation of citizens in public decision-making at all levels, the RTD cannot be realized.

By signing the DRD, governments have re-affirmed that despite their diversity and differences, there are certain fundamental and immutable ethical principles that guide the relationship between the state and citizens and between citizens themselves. As Mr. N.K. Singh, a senior Indian official, has articulated in international fora:

> In my country, there is a general consensus on integrated approaches to human rights in the context of the non-justifiable economic, social and cultural rights contained in our Constitution's Chapter on Directive Principles (of State Policy) which are considered fundamental in the Governance of the country. Our Supreme Court has, further, ruled that the right to life includes the right to live with human dignity and all that goes along with it, and incorporated the basic necessities

---

[40] Article 4.2.
[41] E/CN.4/RES/1998/72 dated Apr. 22, 1998.
[42] *Id.*

> of life essential for the full development of each individuals potential and personality. . .[43]

There are other instruments in International Law that are relevant to the debate of Biodiversity Rights. For instance, the International Labor Organization's Indigenous and Tribal Peoples Convention provides:

> [Indigenous peoples] shall have the right to decide their own priorities for the process of development as it affects their lives, beliefs, institutions and spiritual well-being and the lands they occupy or otherwise use, and to exercise control . . . over their own economic, social and cultural development . . . They shall participate in the formulation, implementation and evaluation of plans and programmes for national and regional development which may affect them directly . . . The improvement of the conditions of life and work and levels of health and education of the peoples concerned . . . shall be a matter of priority in plans for the overall economic development of areas they inhabit . . . Governments shall take measures . . . to protect and preserve the environment of the territories they inhabit.[44]

The participation of tribal people, and all those directly dependent on the natural resource base, is a crucial element in the biodiversity management in countries such as India. This part of the populace is still a sizeable portion of the population. Agenda 21,[45] one of the main documents that came out of UNCED, recognizes that such peoples have a vital role to play in environmental management and development because of their traditional knowledge and practices.[46] To internalize these *de facto* biodiversity managers is an important aspect in the management of biological resources. To help retain their traditional lifestyles and facilitate community-based rights, it

---

[43] Mr. H.K. Singh, Deputy Permanent Representative, Permanent Mission of India to the UNO, Geneva at the 53rd Session of the Commission on Human Rights in Apr., 1997

[44] *ILO Indigenous and Tribal Peoples Convention, (No. 169), Article 7.*

[45] Agenda 21 A/CONF.151/26 (Vol. III) Aug. 14, 1992 Ch 26, Agenda 21 on *Recognizing And Strengthening The Role Of Indigenous People And Their Communities*

[46] Rio Principle 22: Indigenous people and their communities, and other local communities have a vital role in environmental management and development because of their knowledge and traditional practices. States should recognize and duly support their identity, culture and interest and enable their effective participation in the achievement of sustainable development.

is imperative that law does not lead to the very erosion of the factors that keep a community together. The idea of community control of resources is somewhat alien to the western concept of property, wherein the rights of the individual are supreme. On the contrary, within the concept of community-based rights the rights of the individual are of lesser import than the rights of the collective community. Thus, community rights draw their legitimacy from the very fact of community living and not from the nation-state, which is viewed as the guarantor of such rights rather than the grantor.

There is an urgent need for international law and policy to make provisions for the rights of all peoples for access in perpetuity for everyday living purposes to resources that are naturally produced in their lands, be it public/common in nature. This should be amongst the non-negotiables in any inter-state interaction.

The biodiversity rights of states are ultimately the rights of the peoples constituting these states. The non-recognition of these rights does not extinguish these rights.[47] In a democratic republic such as India, the sovereignty of the state is derived from the sovereignty of the people. The necessary concomitant of sovereignty is to be able to exercise the right to take independent and informed decisions. To be thus informed requires that there be access to information. Thus, another aspect of biodiversity rights is the right to information. Principle 10 of the Rio Declaration reiterates this concept: "Environmental issues are best handled with the participation of all concerned citizens. At the national level, each individual shall have appropriate access to information concerning the environment . . . states shall facilitate and encourage public awareness and participation . . ."[48] There may well be the need for a global counterpart to the 1998 European Convention on Access to Information, Public Participation and Access to Justice in Environ-

---

[47] See *Mabo & Ors. v. The State of Queensland* (1992) 175 CLR 1(Austl.).

[48] Environmental issues are best handled with the participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided.

mental Decision Making (Arhus Convention).[49] The Arhus Convention provides the most explicit recognize of the right to information in the environmental context.

In the context of the CBD, the idea of a right to information finds expression in the provision mandating public education and awareness,[50] and exchange of information,[51] and also in more specific requirements for "prior informed consent"[52] of the provider of genetic resources and the "advance informed agreement"[53] when dealing with biotechnology.

Internationally, the CBD alone cannot safeguard the biodiversity rights of developing countries, despite the fact that it gives them the basis for the same. The absence of an enforcement mechanism within the CBD frustrates efforts to ensure compliance. The lack of a means by which countries can be compelled to fulfill their treaty obligations is a fundamental handicap of the treaty.

For a country to be able to assert its sovereign rights over its biodiversity, it must be able to ascribe the biological resources to be those originating from within its territories. There should not be an impediment in international law or policy preventing this assertion. This brings us to the issue of "country of origin." If through modification/alteration of the genetic construct of bioresources from the South, Northern countries can legally claim it originated (or was made in) their land, this claim has serious ramifications for the biodiversity rights of developing countries. There are several cases of biopiracy from Asia that show this happening. The Basmati case most aptly substantiates the problem. In 1997, the U.S. Patent and Trademark Office (USPTO) granted to RiceTec Inc., a Texas-based transnational corporation, a patent[54] for "inventing" Basmati Rice. There were several protests by both peoples and governments across the globe demanding that the patent be revoked *in toto*. The patent was partially revoked by USPTO in August 2001 (only five of the twenty claims made by the

---

[49] UNECE European Convention on Access to Information, Public Participation and Access to Justice in Environment Decision-Making, 1998.

[50] Art. 13.

[51] Art. 17.

[52] Art. 15.

[53] Art. 19.

[54] No.5663484, U.S. Patent.

company in the original patent application have been allowed). The title of the "invention" has also been changed from "Basmati Rice Lines and Grains" to "Rice Lines Bas 867, RT1117 and RT1121." Meanwhile, the U.S. Federal Trade Commission (FTC) issued a ruling providing that the word "Basmati" is a generic term and can be used for rice grown anywhere, even in the U.S.[55] This FTC ruling allows the U.S. to stake a claim and market Basmati Rice of India and Pakistan as "made in U.S."[56] The U.S. actions here may not constitute a technical violation of the CBD because the U.S. Congress has yet to ratify the CBD. Nonetheless, situations such as the Basmati Rice dispute contradict the sovereign rights provisions of the CBD.

Some biological resources are found in multiple countries and thus there could arise legitimate counter claims over a particular resource amidst southern countries as well. It has been suggested by Indian law professor Madhav Gadgil that:

> India might propose that the international community agrees to define a country of origin as that country in which a biological resource that has never been domesticated is known to have occurred under natural conditions at a certain cut off date. . .[57]

The recognition of geographical indications to resources originating from the South is also an ongoing struggle by developing countries. India, for instance, has made a submission to this effect in the WTO TRIPs Council, to extend the protection given in Article 23 of TRIPs to products of developing countries as well. The provision is premised on the recognition that the quality, reputation and or other characteristics of a certain product is essentially attributable to their geographical origin. Currently Article 23 only provides protection in the form of geographical indication for wines and spirits, products essentially of developed countries.[58] The TRIPs Council, which operates under the General Council of the WTO and comprises all

---

[55] FTC ruling in May 2001 in a Citizens' Petition filed by several NGOs including the Research Foundation for Science, Technology and Ecology form India and International Center for Technology Assessment from the U.S.

[56] Read more on the Basmati and Jasmine cases *available at:* http://www.grain.org/publications/seed-01-12-3-en.cfm.

[57] Prof. Madhav Gadgil, (Oct. 1997) *A Framework for Managing India's Biodiversity Resources in the context of CBD & GATT*, RIS-BDR.

[58] Like Scotch Whiskey.

members, has the overall responsibility for the implementation and review of the TRIPs Agreement. In as much as the Agreement defines the relationship countries can have over biological resources, in terms of IPRs; it as important for developing countries to voice their concern at this forum.

It is crucial for all developing countries to have the principles discussed above infuse not only the functioning of CBD itself, but other institutions involved in the management and recognition of biodiversity rights. The CBD Secretariat has entered into "Memoranda of Cooperation" with several other biodiversity-related conventions, including: the 1971 Ramsar Convention on Wetlands of International Importance Especially as Waterfowl Habitat;[59] the 1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora;[60] and the 1972 Convention for the Protection of World Cultural and Natural Heritage.[61] To protect their biodiversity rights, India and other developing nations must also monitor policies and actions undertaken pursuant to these other conventions.

V. INDIA'S EXPERIENCE WITH BIODIVERSITY RIGHTS

The journey for India from Rio has been challenging, and has required significant changes in law and policy. The legal system in India at the time was, and still is, dealing with a mix of the colonial past, the Nehruvian idea of socialism, the Gandhian ideals of village self-rule and the written Constitution of Independent India. The Constitution of India is the fountain of law in the country. As the Supreme Court of India has held: "the Constitution is not only the paramount law of the land, but it is the source and sustenance of all laws. Its provisions are conceived in public interest and are intended to serve a public purpose." [62]

The Directive Principles of State Policy (DPSP) mandate that, pursuant to Part IV of the Constitution, the State must lay down principles fundamental to the governance of the coun-

---

[59] 996 UNTS 245.

[60] The Convention on International Trade in Endangered Species of Wild Flora and Fauna, 27 UST 1087, 12 I.L.M. 1085.

[61] 1972 UNJYB 89.

[62] Olga Tellis v. Municipal Corporation of Greater Bombay, AIR 1986 SC 180.

try and to be applied in making laws.[63] One such DPSP is that contained in Article 40, which deals with the organization of village panchayats.[64] The *panchayat*, an institution of self-government for the rural areas, is the rung of power closest to the people. This decentralized unit of decision-making was given Constitutional status by an amendment[65] in 1992 that inserted a whole section on the Panchayat[66] in the text of the Constitution. The Eleventh Schedule appended to the text of the Constitution,[67] lists over a score of subjects on which the local village body may take decisions on, these include agriculture, land reforms, soil conservation, water management and maintenance of community assets. The 1996 Panchayat Act extends this vision of self-government to tribal areas in India.[68] The law has the potential to empower local village communities to make decisions on their biological resources, and to be "consulted" on decisions regarding developments on their lands. Beyond the 1996 Panchayat Act, additional measures are required to provide villages with more substantive input in the decision-making process. Mere consultation is not tantamount to meaningful participation.

Apart from the legal changes in India, local communities have taken other actions to assert their sovereign rights over local biological resources. One such endeavor is that of the *Jaiv Panchayat* – The Living Democracy Movement,[69] wherein villagers have even issued letters in protest to multinational corporations such as Monsanto, RiceTec and W.R. Grace for at-

---

[63] Art. 37.

[64] The State shall take steps to organize village panchayats and endow them with such powers and authority as may be necessary to enable them to function as units of self-government.

[65] Constitution (Seventy-third Amendment) Act, 1992.

[66] Article 243G of the Constitution: Subject to the provisions of the Constitution, the Legislature of a State may, by law, endow the Panchayats with such powers and authority that may be necessary to enable them to function as institutions of self-government and such law may contain provision for the devolution of powers and responsibilities upon Panchayats at the appropriate level, subject to such conditions as may be specified therein, with respect to
(a)the preparation of plans for economic development and social justice;
(b)the implementation of schemes for economic development and social justices as may be entrusted to them including those in relation to the matters listed in the Eleventh Schedule.

[67] Added by the Constitution (Seventy-third Amendment) Act, 1992.

[68] Panchayat (Extension to Scheduled Areas) Act.

[69] *See* www.vshiva.net.

tempting to pirate their local biodiversity-related knowledge and claiming ownership rights to this knowledge through patents.[70] Also, across many parts of tribal India, there have been movements towards "tribal self-rule," and many villages have simply taken back *de facto* control over forests and waterbodies that had once been usurped by the state or by non-tribals. Then there are the widespread movements against destructive development projects such as major dams, industries, and infrastructure, and against over-exploitation of the seas in the name of export-oriented fisheries development.

There have also been attempts at preparing Community/Peoples Biodiversity Registers (CBRs/PBRs) in several parts of India, a process and product, which is yet to be given formal recognition by the State. The CBRs not only serve as local directories of biological resources but, in their making, a valuable process for community management of biological resources. There are also other several ongoing efforts at community-based conservation (CBC), some of which even find mention in India's submission to the WTO which seek to highlight how trade negatively impacts local control over biological resources and their knowledge.[71] An important process-oriented activity under the CBD is the making of the National Biodiversity and Strategy Action Plan (NBSAP) in which the country's largest ever exercise in environment and development planning is involving tens of thousands of people in making 75 local, state, regional, and thematic action plans.[72]

As far as domestic legislation on biodiversity is concerned, the 1972 Wildlife (Protection) Act[73] is the most noteworthy. This law essentially deals with wild flora and fauna, also providing for national parks and sanctuaries as protected areas. Though several amendments have been made to the legislation since its inception, it still does not deal with the entire range of genetic and biological resources.

---

[70] *See* "Biopirates Catalogue" in *Campaign Against Biopiracy* by Dr. Vandana Shiva, Afsar H.Jafri & Shalini Bhutani, 1999 RFSTE, India.

[71] WT/CTE/W/156, IP/C/W/198 dated July 14, 2000.

[72] The National Biodiversity Strategy and Action Plan (NBSAP) of India is currently in the process of being formulated. A project of the Union Ministry of Environment and Forest (MOEF), NBSAP aims to produce a series of planning documents dealing with India's biodiversity as per the objectives of the CBD.

[73] Act 53 of 1972.

After the Constitutional Amendment in 1976 making the administration of forest law a concurrent subject (one that can be regulated by both the Central and State levels of government), the 1980 Forest Conservation Act[74] was enacted. This law's intended objective is to check deforestation and impose restrictions on dereservation of reserved forests or use of forestland for non-forest purposes.

Following the Stockholm Conference, in 1986 Indian enacted general legislation entitled the Environment Protection Act.[75] The Act empowers the Central government to take all such measures as it deems necessary for protecting and improving the quality of the environment and preventing, controlling and abating environmental pollution. [76] It is under this rule-making power that in 1989 the Government issued the Rules for the Manufacture, Use, Import, Export and Storage of Hazardous Microorganisms, Genetically Engineered Organisms or Cells,[77] which to date comprises India's biosafety law. These Rules must be updated pursuant to the Cartagena Protocol on Biosafety to the Convention on Biological Diversity, signed by India on 23 January 2001. There is an urgent need to bring the Rules up to date with the international scientific knowledge, information and experience on biotechnology.

The structural adjustment programmes of the World Bank and the conditionalities imposed on India by the International Monetary Fund ("IMF") sometimes demands changes that are contradictory to the fundamental nature of the Indian polity. For instance, the quasi-federal nature of the Indian polity distributes legislative power between the Centre and the State legislatures. Subjects such as water are currently on the State list.[78] There are currently efforts, however, to place water on the Concurrent List, so as to make it easier for the Central government to adopt uniform laws across the country. This would reduce multiple clearances at various state levels creating a single entry point in the Centre for multinational corpo-

---

[74] Act 69 of 1980.

[75] Act 29 of 1986.

[76] *Id.* Section 3.

[77] Framed under Sections 6,8 and 25 of the Environment Protection Act, (1986) Act and issued on December 5, 1989.

[78] Entry 17 of List II – State List in the Seventh Schedule of the Constitution of India.

rations seeking to enter the country to exploit what are coming to be known as the water markets. This is something that is mandated by the WTO's General Agreement on Trade in Services (GATS),[79] which treats water as a service, which may be traded. The groundwork for the entry of the private sector into the water sector has already been done by World Bank projects in India mandating the same.[80] There has been no public debate in India on whether that would be the appropriate policy option for the country and its people.

Since 1991, economic reforms have been initiated in India that have changed most sectors of the Indian economy. The most visible changes in Indian law and policy, which have far-reaching ramifications on biodiversity, have been those ushered in post-1995 after completion of the GATT Uruguay Round negotiations resulting in the creation of the WTO. Particularly after the Third Ministerial Conference of WTO at Seattle in 1999, where the proceedings were disrupted by widespread protests, there has been a flurry of legal changes in India. The changes include amendments in the Patent Law[81] and the passage of the 2001 Plant Varieties Protection (PVP) and Farmers Rights Act.[82] Serious concern has been expressed about the potential negative impacts of these legal measures, especially on local communities. The amendments in the domestic patent law, also discussed later in the article, open up the domestic health and agriculture sector to foreign multinationals and seek to introduce product patents in these sectors, hitherto not allowed in order to keep prices under control and also to safeguard the domestic producers. As regards the PVP Act, the criticism is that it is too closely modeled on the UPOV and merely pays lip service to farmers' rights. A UPOV-styled

---

[79] The application of GATS rules, together with the general GATT principles of Most Favoured Nation and National Treatment, would imply that governments in developing countries would not be able to keep water services in the public sector and would have to give the same subsidies and funding support to private service providers as it would to non-profit institutions in the public sector.

[80] See the World Bank report on India on http://www.indiaonestop.com/general.htm "In the urban sector, the World Bank is working with a number of state governments and municipalities to make the urban water sector financially viable, to help water utilities become commercially-oriented . . . "

[81] Two amendments in the Indian Patents Act, of 1970 have been sought; these are later discussed in pages 36-38 below.

[82] Act 53 0f 2001.

law, which at most would grant a "farmers' privilege" to save seeds, does not recognise the positive rights of farmers.

These legislative changes show how in the midst of all dynamic internal processes, the legal structure has had to also deal with external pressures for legal change to confront with emerging international law and institutions.

VI. NEW THREATS TO BIODIVERSITY AND RELATED RIGHTS

In the new economic order, there are two nascent developments, interconnected as they are, which are of serious concern to biodiversity and related rights in India. These are intellectual property rights relating to biological resources and the impact of genetic engineering on agriculture.

On January 1, 1995, the WTO was established and the TRIPs agreement came into force.[83] TRIPs specifically requires all governments to provide for patents for all inventions.[84] The WTO is backed by economically strong developed countries. Most of the multilateral trade agreements within the WTO have been negotiated at the urging and for the benefit of corporate interests in developed countries. For instance, the TRIPs Agreement was drafted with significant input from Intellectual Property Committee (a coalition of twelve major U.S. corporations), Keidanren (a federation of economic organizations in Japan) and the Union of Industrial and Employees Confederation (the official spokesperson for European Business and Industry).[85] As such, the agreement was basically fashioned to meet the commercial interests of multinational companies based in these countries. Most of the economically strong developed countries have a vested interest in keeping in line with the WTO provisions, primarily to retain market access to and control over bio-resources of the developing countries that these set of rules provides. The negotiations were a package deal, wherein the developing countries had little space to pick and choose elements that would be acceptable. And neither

---

[83] Agreement on Trade Related Aspects of Intellectual Property Rights, Marrakesh Agreement Establishing the World Trade Agreement, Annex 1C, 33 I.L.M.81.

[84] Article 27.1: . . .*patents shall be available for any inventions, whether products or processes, in all fields of technology . . . available at:* http://www.wto.org /english/docs_e/legal_e/27-trips.pdf.

[85] Dr.Shiva, Afsar A.Jafri, Shalini Bhutani, (1999) *Campaign Against Biopiracy,* Research Foundation for Science, Technology and Ecology.

does the WTO allow for any reservations. Nelson Mandela, former President of South Africa, commenting on the results of the GATT Uruguay Round, said: "The developing countries were not able to ensure that the rules accommodated their realities... it was mainly the preoccupations and problems of the advanced industrial economies that shaped the agreement."[86] Mandela added that rules applied uniformly are not necessarily fair because of the different circumstances of members.[87]

The TRIPs agreement of the WTO requires member states to accept IPRs over micro-organisms, micro-biological processes and plant varieties.[88] This core requirement and provision is antithetical to India's cultural and economic interests. It also puts at risk the community-based public domain knowledge of biological resources. Article 27.3(b) of TRIPs is of particular concern to developing countries, in as much as it to mandatorily requires for the protection of plant varieties either by patents or by an effective *sui generis* system or by any combination thereof. This article was a major coup for biotechnology and agrotech corporations in that it provides broad international patent protection for engineered bioresources.

The other agreement that is closely related to WTO TRIPs Agreement Article 27.3(b) is the International Convention For the Protection of New Plant Varieties ("UPOV").[89] UPOV is primarily designed to protect the patent rights of agrotech companies and disallows farmers to save seeds at the farm level. The "protected variety" may still be used as an initial source of variation for the creation of new varieties but such "new varieties" increasingly under the control of corporate breeders cannot be marketed or sold without the plant breeders' rights' holder allowing it. This undercuts the rights and welfare of the majority of the farming population in India. Provisions of international trade law, such as those in the TRIPs and UPOV, serve to disenfranchise local communities and contradict the biodiversity rights recognized in the CBD. More specifically, these trade law provisions are not compatible

---

[86] As quoted in *WTO & Developing Countries,* Volume 3, Number 37, Nov. 1998 by Aileen Kwa, Focus on the Global South, Bangkok, eds: Tom Barry (IRC) and Martha Honey (IPS).

[87] *Id.*

[88] Vide Article 27.3(b).

[89] See http://www.upov.org/eng/index.htm.

with the CBD's protection of the biodiversity rights of indigenous and local communities.[90]

The biodiversity crisis in India and other developing countries is heightened by the fact that the international trade agreements are being implemented at a much faster pace than can be matched by any possible safeguards in domestic law and policy for biodiversity and related rights of the people. Since 1995 (post-WTO) several IPR-related legislation have been enacted in India, most of which bolster the interests of multinational biotech/agrotech corporations. The 1999 Geographical Indications Act[91] is one statute that was legislated with haste in that period. However, since no rules have been issued under the said statute, the Act is not yet operational and as such so far has not provided protection to local biological resources, or related knowledge.

The most controversial legislative development, however, has been the amendments to the 1970 India Patent Act.[92] By an amendment enacted in 1999,[93] provision was made for grant of exclusive marketing rights on drugs and agrichemicals, a sector hitherto reserved for government in the interest of keeping pricing and supply in check. In an era of biotechnology where drugs, pharmaceuticals and agrichemicals are derived

---

[90] Supra note 25 at Art. 8.

[91] Legislation for the protection of geographical indications called the Geographical Indications of Goods (Registration & Protection) Bill, 1999 was approved by both houses of the Indian Parliament on Dec. 23, 1999. Sec 2(e) of the Act defines "geographical indication" in relation to goods as agricultural goods, natural goods, manufactured goods originated or manufactured in the territory of country or a region or locality in that territory where a given quality reputation or other characteristic of such goods are attributable to its geographical origin and in case such goods are manufactured goods one of the activities of either the production or of processing or of preparation of the goods concerned takes place in such a place, region or locality. The object of the Act is to prevent misuse and misrepresentation of true place of origin of goods. The Act seeks to ensure that India gets reciprocal protection, which it has to provide to indications of other countries. It was passed on the premise that unless a Geographical Indication ("GI") had been protected in the country of its origin, there would be no obligation under the WTO for other countries to extend reciprocal protection. GIs are dealt with in Article 22 of WTO TRIPs.

[92] The Patents (Amendment) Act, 1999 passed by the Indian Parliament on Mar. 10, 1999 received the assent of the President of India on Mar. 26, 1999. It provides for establishment of a mailbox system to file patents and introduces Chapter IV A on Exclusive Marketing Rights in the Indian Patents Act, 1970. See the text of the Amendment on http://www.indianembassy.org./policy/Commerce/patent_amendment_ 1999. htm.

[93] *Id*; The purpose of the Amendment was to put in place machinery for implementation of Articles 70.8 and 70.9 of TRIPs.

from biological sources, patent issues in medicine and agriculture necessarily involve issues of biodiversity.

The 1999 amendment to the Patent Act was pushed through despite protests from citizens and non-governmental organization (NGOs) who pointed out that the rush to make domestic legislation TRIPs-compliant jeopardized the health and agriculture sectors of the country, and was unwarranted particularly when there is a review provision in TRIPs that countries like India must avail of to highlight the problems faced in implementation. This resulted in NGOs filing a writ petition[94] in public interest in the Supreme Court of India, challenging the amendment as unconstitutional and against national interest. There is also a second amendment, which seeks to introduce product patents in India, which is poised for clearance by the Parliament.[95] The Court has allowed the petitioners to withdraw the abovementioned case with the liberty to file a fresh writ petition, if necessary, after this subsequent second amendment is made.[96]

As far as the actual experience with application of product patents is concerned there are lessons for India to learn from the African experience with prices of anti-AIDS drugs reaching unaffordable levels and the Thai experience wherein the Government has been hindered from using price control mechanisms and other safeguards under threat of trade sanctions from the U.S. or other such like pressures.[97] It has been argued even in the case mentioned above that the U.S. Uruguay Round Agreement Act[98] gives primacy to domestic legislation and so should likewise India, whereby if a provision of international law is at odds with national law and the former would be

---

[94] RFSTE & Others v. Union of India, Writ Petition (Civil) 322 of 1999.

[95] The Patents (Second Amendment) Bill, 1999 to further amend the Patents Act, 1970 and make it TRIPS compliant was introduced in the Upper House of the Indian Parliament on December 20, 1999. A Joint Parliamentary Committee is considering the Bill and as of date the Bill it is yet to be reintroduced in the Parliament.

[96] Order of the Court dated Jan. 8, 2002 IN Writ Petition Civil No.322 of 1999.

[97] The petitioners in their submissions to the Supreme Court of India in Writ Petition 322 of 1999 cite examples of external pressure on Govt. of Thailand hindering them to use the price control mechanism and other safeguards that lead to the dismantling of the Thai Pharmaceutical Board and likewise, examples of South Africa where compulsory licensing when proposed to be used as a safeguards, the country was threatened by trade sanctions by the U.S.

[98] On December 8, 1994, President Clinton signed the "Uruguay Round Agreements Act" (URAA), which implements the Uruguay Round General Agreement on Tariffs and Trade (GATT) in the U.S.

either against the Constitutional mandate of the nation or its public interest then the domestic law would prevail.

Another sector of biodiversity that has been vulnerable to the change in patent law and policy is that of agricultural biodiversity. The Indian agriculture sector has been opened up to international trade as per the dictates of the WTO. This has meant, among other things, reorientation of cropping patterns for export markets, entry of global corporations in the seed, food processing and packaging sectors and industrialization of agriculture with the introduction of potentially hazardous technologies, such as genetic engineering.

India issued its first ever National Agriculture Policy in 2000.[99] On the one hand, the policy expressly remarks how the situation for Indian farmers would deteriorate in the wake of integration of agricultural trade in the global system.[100] On the other hand, however, it continues to focus on promoting "value addition" and accelerating the growth of agrobusiness.[101] This policy also does little to address the problem of the economic marginalization of small-scale, diverse food production systems that conserve farmers' varieties of crops, which form the genetic pool for food and agriculture in the future. On the contrary the policy *inter alia* seeks to give special attention ". . . to development of new crop varieties, particularly of food crops, with higher nutritional value through adoption of biotechnology particularly, genetic modification . . .[102]

There are legitimate biosafety concerns arising from this focus on the development of new crop varieties. As the Government of India itself admits in the second report to the CBD, there are not adequate mechanisms in the country to deal with this potentially hazardous technology.[103] For instance, open field trials of Monsanto's transgenic cotton have been allowed by the Government of India's Department of Biotechnology without proper approval of the Genetic Engineering Approval Committee of the Ministry of Environment and Forests. As per

---

[99] The text of the Policy may be downloaded from the official website of the Department of Agriculture and Cooperation, Ministry of Agriculture, Government of India http://agricoop.nic.in/agbud.htm.

[100] Indian Natural Agricultural Policy (2000) at Paragraph 3.

[101] *Id.* at Paragraph 5.

[102] *Id.* at Paragraph 13.

[103] *Available at:* http://www.biodiv.org/doc/world/in/in-nr-02-en.doc, pp. 79-80.

scientific fundamentals, in an ecosystem you can always intervene and change something, but there is no way of knowing what all the downstream effects will be or how it might effect the environment. The risks associated with open field trials involving transgenic material are those arising from the understanding of reproduction and multiplication inherent to living organisms. Releases of genetically engineered organisms may trigger irreversible changes with the elements of the natural environment that they come in contact with, as against when they are kept in closed containment whereby such an interaction is not possible. Highlighting the possible risks to human and ecological health, as well as the need of clear jurisdiction in the biotechnology and regulatory system a writ petition was filed in the Indian Supreme Court challenging these open field trials.[104] The matter is still pending before the apex court. In the meanwhile, transgenic Bt cotton was found to be growing in the Western State of Gujarat late last year without the Centre or the State governments having given permission for the same. With such an apparent by-pass of the regulatory system, posing risks to the natural environment and divided Centre and State opinions on the manner in which it should be dealt with, the debate on whether India should adopt transgenics in agriculture has been rekindled anew. There has been an aggressive propaganda by multinational agribusiness corporations and government circles selling genetically-engineered (GE) crops/products in India. In the midst of this propaganda effort, several NGOs have together continually stressed for biosafety concerns to be addressed foremost.[105]

Principle 15 of the Rio Declaration provides that when there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for proposing cost-effective measures to prevent environmental degradation.[106] This approach is commonly referred to as the precautionary principle. Because of the reproduction and multiplica-

---

[104] *RFSTE v.Union of India*, Writ Petition Civil No.71 (1999).

[105] Press Release issued by NGOs at the time of the Gujarat controversy is attached as Annex I.

[106] Principle 15 of Rio: *In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.*

tion inherent to living organisms, releases of genetically engineered organisms can have an irreversible negative impact on the environment. As reiterated by Justice M.J. Rao of the India Supreme Court: ". . . there is nothing to prevent decision makers from assessing the record and concluding there is inadequate information on which to reach a determination. If it is not possible to make a decision with some confidence, then it makes sense to err on the side of caution and prevent activities that may cause serious or irreparable harm. An informed decision can be made at a later stage when additional data is available or resources permit further research."[107]

As early as the time of adoption of the CBD, India had taken the position that the "focus of studies . . . relating to liability and compensation should be on subjects as biotechnology products, the environmental aspects of genetically modified organisms . . ."[108] These issues remain unresolved. Also, the issue of a ban on Genetic Use Restriction Technologies (GURTs),[109] more commonly known as Terminator and Traitor technologies has often been raised in the CBD. However, many have been left disappointed with the outcome of the Conference of Parties, which did not take a strong stand on this issue.[110]

Genetically modified organisms and intellectual property go together. The law of patents allows private ownership at the level of the gene. In other words, IPR law under TRIPs legitimises the patenting of life forms and biodiversity. Today transgenic crops are the "intellectual property" of the multinational corporations, such as Monsanto, which are marketing the technology to countries in the Third World. Monsanto has been very loud and public in its claims against farmers who used its patented seeds, even if this use was accidental.[111] Multinational agrobusiness firms such as Monsanto have been aggres-

---

[107] AIR 1999 SC 812.

[108] Declaration made by India on Adoption of CBD.

[109] GURTS is a genetic engineering technique, developed by "life sciences" corporations to be able to control the very genetic traits of the seed, making it either sterile or requiring proprietary chemical inducers. The use of such techniques in Third World agriculture would compel the millions of farmers around the world who traditionally save their seed for replanting to turn to these transnational corporations for the seed and other inputs.

[110] The Conference of Parties (COP) is the governing body of the Convention, established under Article 23 which has the key responsibility of keeping implementation under review.

[111] *Available at:* http://www.percyschmeiser.com.

sively pushing their products into India not only through the regular trade route, but by dumping food and seeds with GMOs as food aid in disaster areas,[112] as well as in nutritional programmes.[113]

Meanwhile there has been as increase in the spending in developed countries on research and development in crop biotechnologies for application in agricultural practices in the developing countries. [114]

In terms of products, several Indian public sector institutions have sponsored or are conducting transgenic research in rice, tobacco, mustard, potato, tomato, brinjal, cauliflower and cabbage.[115] The Central Tobacco Research Institute in Rajahmundri, is doing research[116] with Bt toxin. Jawaharlal Nehru University is doing transgenic research on potato with seed protein containing lysine, obtained from seeds of Amaranthus plants.[117] The Indian Agricultural Research Institute in New Delhi is in a very advanced stage of research and application of Bt gene in vegetables such as brinjal, tomato and cauliflower.[118] The institute also has completed the transformation and greenhouse trials of mustard, modified with arabidopsis annexin gene. The Chennai-based MS Swaminathan Research Foundation is developing salt-resistant paddy, with a gene obtained from a mangrove plant in the coastal belt of Tamil Nadu.[119] The Department of Biotechnology of the Government of India and Swiss researchers have reached an agreement, that would allow Indian agriculture scientists to insert the "golden rice" gene sequences into popular Indian varieties of rice.[120]

---

[112] GE corn soya blend was distributed in the relief package to victims of the Orissa cyclone.

[113] Integrated Child Development Scheme.

[114] *Agricultural Biotechnology and Food Security: Exploring the Debate* Ian Scoones, Institute of Development Studies, University of Sussex July 2001 http://www.ids.ac.uk/ids/env/agbio3.pdf.

[115] *Background Document for Workshop on Biosafety Issues emanating from use of GMOs*, Prepared jointly by Biotech Consortium India Limited, New Delhi and DBT, Ministry of Sc. & Tech, GOI, (Sept. 1998).

[116] *Id.*

[117] *Id.*

[118] *Id.*

[119] *Id.*

[120] *Id.*

In the private sector, Mahyco, Rallis India and Proagro PGS (India) Ltd. are engaged in the development of transgenic crops.[121] Novartis is expected to join them very soon.[122] Mumbai-based MAHYCO, in collaboration with Monsanto, has completed multicentric field trials of Bt cotton in over 40 locations and field trials in over 10 agricultural states are in progress.[123] Rallis India Ltd. is doing researches into the introduction of lectin gene in chilli, bell pepper and tomato. Proagro is working on mustard, tomato and brinjal. [124]

The national agricultural research systems (NARS) of developing countries like India have much less research and development spending than the International Agricultural Research Centres of the Consultative Group on International Agricultural Research (CGIAR).[125] The lack of technical knowledge in developing countries is a matter of grave concern when dealing with potentially hazardous technologies. The most pressing concern, however, is the imbalance of negotiating strength between the corporations that pioneered transgenic crops on the one hand, and farmers, scientists and governments in poor countries on the other.

There is the concern that wide use of transgenics in agriculture would reduce the diversity of crop species grown and so reduce the gene pool. The gene pool has already been reduced to some extent by modern farming techniques and it is feared that the availability of GE crops would aggravate the problem. Citizens' Juries, wherein the issues are presented before a peoples' gathering, with farmers in states like Karnataka and Andhra Pradesh[126] have unequivocally brought to the fore these concerns. There is very little public debate encouraged by government and industry on this issue in India.

There are broader fears that are being expressed that widespread adoption of transgenic seeds could add to the risks

---

[121] *Id.*

[122] *Id.*

[123] *Id.*

[124] *Id.*

[125] The CGIAR system with its 16 International Agricultural Research Centres holds the world's largest *ex situ* collections of plant genetic resources. The CGIAR was established in 1971 as an association of public and private research members, with the sponsorship of the FAO, UNDP and the World Bank. See www.cgiar.org.

[126] Michael Pimbert, Tom Wakeford & P.V. Satheesh, *Citizens' Juries on GMOs and Farming Futures in India,* http://www.ids.ac.uk/ids/env/GMOsIndia.pdf.

faced by India's most vulnerable farmers. Many Indian farmers—generally the small and marginal—never adopted the intensive practices used in many developed nations, such as heavy reliance on pesticides and chemical fertilizers. These farmers still use traditional seeds that can be saved from one crop to plant the next. Those farmers may get smaller yields and profits than their corporate counterpart, but because they use free seeds—and, often, little or no chemical fertilizers or pesticides—they rarely take on debt. If GE seeds become the norm traditional seeds might become hard to find, or the latter could get contaminated by GE crops in neighboring fields due to possible cross-pollination. Then the big multinationals would control the market for seeds—the most basic source of a farmer's livelihood and, indeed, his/her life. In this scenario, Indian agriculture would increasingly become a subsidiary of agrobusiness corporations in the North.

Another dimension of the debate on GE products is multinational corporations' control and influence over science. The approval of a hitherto untried technology should involve independent risk assessment in which the science and scientists are objective. Epitomizing the problems of "corporate" science, the GE issue reveals how the problems are political and sociological as well as scientific. These issues have profound ethical implications, e.g., those associated with gene manipulation and modification of life forms. Scientific activity is not isolated but takes place within a larger social, economic and political matrix. The concern in India, and shared by many other developing countries, is that science today (and particularly risk assessment related to GE products) is too heavily controlled by international corporate interests in the developed world.

In this context, the U.N.'s embrace and promotion of GE patent protection has raised considerable alarm among environmental groups and civil society organizations. The Human Development Report of 2001 issued by the U.N. Development Programme ("UNDP") had a special focus on "making new technologies work for Human Development," and predicted that, although controversial, genetic modification should be encouraged because of its potential to develop GE products to help feed the developing world.[127]

---

[127] *Available at:* http://www.undp.org/hdr2001/chapterfive.pdf.

Food and agriculture systems are going through major transformations worldwide with serious ramifications on biodiversity. If the CBD is to check this, it must strengthen its programme work[128] on agricultural biodiversity, a task begun at the COP3. The CBD has asked with reference to the WTO Committee on Trade and Environment ("CTE") to develop better appreciation of the relationship between trade and agricultural biodiversity. [129]

Per the 1994 WTO Agreement on Agriculture (AOA), the member countries – both developed and developing – are obliged to gradually open up their agricultural sectors to world trade by removing all the trade distortions.[130] For instance, India was compelled to remove quantitative restrictions on imports of several agricultural goods with effect from April 1, 2001.[131] Previously, imports have been restricted by countries on various grounds for environmental and ethical reasons and reasons of public order – so as also to protect the small and unorganized sector that would be adversely affected by an influx of imports. India, as a member of WTO, is now required to implement various agreements and provisions pertaining to agriculture. These include commitments on reduce domestic support, increase market access, reduce export subsidies and comply with the 1994 WTO Agreement on Sanitary and Phytosanitary Measures. [132]

At the WTO's Committee on Agriculture, India has often articulated its legitimate concerns.[133] For developing countries like India, agricultural biodiversity is an area of particular concern in the context of food security. While several developing countries have made a proposal for a "Development Box" to be

---

[128] The CBD COP has developed five thematic work programmes including that on agricultural biodiversity.

[129] See WT/CTE/W/125; UNEP/CBD/COP/3/23 dated Oct. 5, 1996 and Recommendations to the Third Meeting of the SBSSTA in UNEP/CBD/SBSTTA/3/Inf. 10 dated Aug. 18, 1997.

[130] Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations, Apr. 15, 1994, [in] *The Legal Texts: The Results of the Uruguay Round of Multilateral Trade Negotiations*, 33 I.L.M. 1125 Annex I (1999).

[131] This was the result of a U.S. initiated dispute against India in the WTO DSM, which culminated in the Appellate Body Report WT/DS90/AB/R dated Aug. 23, 1999. Read the details in the Booklet on Quantitative Restrictions downloadable from www.vshiva.net Campaigns' section.

[132] Agreement on the Application of Sanitary and Phytosanitary Measures http://www.wto.org/english/docs_e/legal_e/15-sps.pdf.

[133] G/AG/NG/W/102 dated Jan. 15, 2001 and G/AG/NG/W/176 dated Apr. 11, 2001.

set up under the WTO, India has demanded for a "Food Security Box" to be so set.[134] The Like-Minded Group (a collective of 13 WTO member developing countries) and India, in particular, are expected to rehash the development debate in agriculture.

A major area of concern is the impact of the western-styled IPR system promoted by the WTO. CBD's COP has also sought cooperation from the WTO in the context of IPRs and particularly in the context of benefit sharing.[135] This cooperation is routed through the CTE for possible linkages between Article 15 of CBD and TRIPs.[136] In its submissions to CTE, India has proposed that under its terms of reference the CTE should deal with: (a) the relationship between the provisions of the CBD and those of the TRIPs Agreement; and (b) suggestions on reconciliation of any contradictions therein, in line with the CBD provisions or within the same overall objective of conservation of biological resources with sustainable development.[137] India has also offered some suggestions to reconcile the contradictions here above-mentioned. For instance, at the CTE in 2000, India raised the issue of biopiracy of traditional knowledge, reiterating "patent applicants should be required to disclose the source of origin of the biological material utilized in their invention under the TRIPS Agreement and should also be required to obtain prior informed consent (PIC) of the country of origin."[138]

The WTO has not yet responded to these demands, and there here is no visible attempt by the WTO to re-orient the IPR regime accordingly. On the contrary, recent decisions by WTO dispute panels (such those initiated by the U.S. against India[139] and Brazil[140]) has insisted on TRIPs compliance by de-

---

[134] As explained by the WTO: In WTO terminology, subsidies in general are identified by "boxes" which are given the colours of traffic lights: green (permitted), amber (slow down — i.e. be reduced), red (forbidden). The Agriculture Agreement has no red box, although domestic support exceeding the reduction commitment levels in the amber box is prohibited; and there is a blue box for subsidies that are tied to programmes that limit production. There are also exemptions for developing countries (sometimes called an "S&D box"). *See* http://www.wto.org/english/tratop_e/agric_e/negs_ bkgrnd08_ domestic_e.htm.

[135] COP 3 Decision III/17, paragraph 8; Decision IV/15, paragraph 10.

[136] Decision III/15, paragraph 8.

[137] WT/CTE/W/65 dated Sept. 29, 1997.

[138] WT/CTE/W/156 and IP/C/W/198 dated July 14, 2000.

[139] See the Report of the Panel. India – Patent Protection for Pharmaceutical and Agricultural Chemical Products, WT/DS50/R, Bernan's Annotated Rep., vol 4 and Report of the Appellate Body, India - Patent Protection for Pharmaceutical and Agricul-

veloping countries. Similarly, there is also no indication that reviews of the TRIPs Agreement are giving consideration to any fundamental change in the international IPR regime.

At the U.N. Food and Agriculture Organization (FAO), however, the CBD has had some influence on the international debate on plant genetic resources. The International Treaty on Plant Genetic Resources[141], negotiated under the auspices of the FAO in November 2001, is a result of the revision on the International Undertaking to reconcile it with the principles of CBD. The Treaty establishes a multilateral system for the genetic material of plants used for food and agriculture. The compromised position that developing countries had to agree to includes an Article 12.3(d). The Treaty envisages the creation of an MLS that would provide for access to a negotiated list of plant genetic resources and for the fair and equitable sharing of the benefits arising from their use. The Article states recipients will be provided access to the plant genetic resources "...if they shall not claim any intellectual property or other rights that limit the facilitated access to the...resources for food and agriculture, or their genetic parts or components, in the form received from the MLS." The words "in the form received" suggest that modifications would be eligible for patentability. The Article may be interpreted to allow IPRs on genetic resources that are accessed from the multilateral system (MLS). The Treaty's provisions must be used as an opportunity to insist on changes to the IPR regime that give due regard to the interests of developing countries, and to restrain the inequities in the current TRIPs and UPOV agreements.

Issues of traditional knowledge are discussed in a number of international fora including the CBD, the FAO and the U.N. Economic Social and Cultural Organization (UNESCO), the World Intellectual Property Organization (WIPO), the WTO's TRIPS Council and the CTE. Herein it is crucial to keep

---

tural Chemical Products, WT/DS50AB/R.Bernan's Annotated Rep., vol 4.

[140] On February 1, 2001 the United States filed a complaint with the World Trade Organization contending that Brazil's patent law discriminates against drug imports in violation of the rights of drug companies. *See also* in the WTO, DS224 United States: U.S. Patents Code (Brought by Brazil): Feb. 7, 2001 and DS199 Brazil: Measures affecting patent protection (Brought by U.S.): June 8, 2000.

[141] See http://www.fao.org/ag/cgrfa/News.htm and text of the Treaty on ftp://ext-ftp.fao.org/waicent/pub/cgrfa8/iu/ITPGRe.pdf.

the CBD central, for the opportunities that it provides to developing countries.

In the present trade dominant paradigm, there is also the risk of the CBD being invoked by corporate interests to bolster their IPR claims, and developing world governments need to be wary of such attempts. Mere utilization and value addition to indigenous bioresources cannot be considered a vehicle for economic growth of developing countries, which possess the larger portion of the world's bio-assets.

This is manifested in the debate on access and benefit-sharing (ABS) in the CBD. Currently, under the auspices of the CBD, a Working Group is discussing the development of Draft International Guidelines on Access and Benefit-Sharing.[142] In India, a national regime to manage these access issues has been proposed in the Biological Diversity Bill.[143] The Bill envisages the setting up of a National Biodiversity Authority, which would process access and also effect the sharing of benefits arising from such access granted.[144] Importantly, this national access legislation recognizes the rights, customary laws, and practices of indigenous peoples and local communities.[145] So far, the Indian test case on benefit sharing has been that of the Kani Tribe in South India. A benefit sharing arrangement was concluded between Tropical Botanical Garden and Research Institute (TBGRI) and the Kani tribals of Kerala for the development of a drug called 'Jeevani' based on the knowledge of the Kani tribe. Jeevani is a restorative, immuno-enhancing, anti-stress and anti-fatigue agent derived from the medicinal plant *arogyapaacha*, which is used by the Kani tribals in their traditional medicine. The formulation of this drug was then licensed to the Arya Vaidya Pharmacy Ltd., an Indian pharmaceutical manufacturer pursuing the commercialization of Ayurvedic herbal formulations. A Trust Fund was established to share the benefits arising from the commercialization of the TK-based drug 'Jeevani'. However the arrangement ran into some prob-

---

[142] UNEP/CBD/WG-ABS/1/3 dated Aug. 11, 2001.

[143] Bill No.23 of 2000.

[144] *Id.*

[145] Also reiterated in the NGO – Statement at the Ad Hoc Open-Ended Working Group on Access and Benefit Sharing, Bonn, Oct. 26, 2001.

lems with the exploitative extraction of the plant, bringing in conflict commercial and conservation objectives.[146]

VII. INTERNATIONAL LAW VS. NATIONAL LAW

The new threats to biodiversity ushered in by changes in international law also pose problems in the interface of international and national law. It is not coincidental that, in India today, the crisis of biodiversity is also the crisis of democracy. Bad government may only aggravate what is perpetrated by corporate dominance of the free market. In as much as international trade law is beginning to dictate how things would be done intra-state rather than merely inter-state, it impinges on the sovereign right of a nation state and its people to make decisions. This is especially relevant in the context of decision-making on the biological resources within the state's territorial jurisdiction. Governments tend to tailor their domestic policies so as to avoid conflicts with international trade law. This puts a new onus on NGOs, civil society organizations and citizens themselves. If the World Bank, IMF and the WTO are to determine which model of development the country is to pursue, then it leaves very little space for the exercise of democracy. The current model is not only leading to the erosion of the right to choose from options, but the erosion of options itself.

The pressures from outside have been increasingly pronounced in the past decade and lawmaking in India and other developing countries has come to be reflective of these pressures.

The IPR regimes established by the WTO and TRIPs, and the CBD, are two international legal regimes with apparently conflicting objectives. The WTO/TRIPs objective is to create and support the expansion of patents and intellectual property rights over life forms. This has serious negative implications for the biodiversity rights of developing countries that are recognized under the CBD. To date, it appears that the WTO/TRIPs agenda or corporatization and privatization of biological resources is winning out.

---

[146] Anuradha, R.V. Kalpavriksh, *Sharing the Benefits of Biodiversity: The Kanis-TBGRI Deal*, Delhi/Pune (2000).

VIII. EQUITY AND JUSTICE

The controversy over IPRs and biological diversity raises complex question concerning equity and justice. More specifically, from the perspective of India and other developing countries, the WTO/TRIPs regime appears to legitimize and promote a form or biopiracy, in which the control over and value of biological assets are in essence stolen. Countering this biopiracy will require breathing new life in to the human rights debate, particularly within U.N. forums. The Universal Declaration of Human Rights (UDHR) provides that the "ideal of human freedom can be realized only if conditions are created whereby everyone may enjoy his economic, social and cultural rights, as well as his civil and political rights." In bio-rich developing countries such as India, this necessitates protecting the biodiversity and the traditional lifestyles that nurture the knowledge that keeps it alive. This would translate as a non-negotiable title on biological resources.

It is recommended that the Commission on Human Rights must continue to support and encourage the work of the Sub-Commission on the Protection and Promotion of Human Rights in relation to globalization and its impacts on the ability of States to fulfill their obligations under the Covenant on Economic, Social and Cultural Rights.[147] The Covenant seeks the holistic development of all human beings and requires states to undertake steps to progressively achieve the full realization of the rights that it recognizes. These rights include the right to self-determination,[148] the right to social security,[149] and the right to take part in cultural life.[150] The UN Economic and Social Council (ECOSOC), in its statement to the Third Ministerial Conference of WTO,[151] had urged that the WTO undertake a review of the full range of international trade and investment policies and rules in order to ensure that these are consistent with existing treaties, legislation and policies designed to protect and promote all human rights.[152]

---

[147] U.N.T.S. No. 14531, vol. 993 (1976), p. 3.
[148] *Id.* Art. 1.
[149] *Id.* Art. 9.
[150] *Id.* Art. 15.
[151] E/C.12/1999/9 dated Nov. 26, 1999.
[152] *Id.* Para 2.

The principle of the right to development, and the related principle of the right to participation, is grounded in the concept of equity; that development benefits be shared equitably among citizens. These principles - participation and equity - are at the heart of bio-justice. The realization of these rights is the *sine qua non* for the realization of justice.[153]

IX. CONCLUSION

It is crucial that developing countries not perceive the CBD merely as a trade pact. This perception reduces the inherent value of this multilateral space created by the CBD as a potential counter to purely corporate-driven policies. The governments of developing countries have a vital stake in the implementation of the CBD. The CBD is at a soft stage of development. It is a weak agreement in the sense that there is no mechanism to ensure that member countries put in place national policies and laws in order to implement the treaty's various provisions. There is a danger that the WTO and related trade agreements and institutions may overwhelm the CBD and the national law making space on biological resources.

Trade negotiations are based on the principle of reciprocity or trade-offs. That is, one country gives a concession in an area, such as the lowering of tariffs for a certain product, in return for another country acceding to a certain agreement. For the most part, negotiations and trade-offs take place among the developed countries and some of the richer or larger developing countries. The CBD stands for the premise, however, that there are fundamental conservation concerns regarding biological diversity that are too important to be traded away. The CBD suggests, rightly, that these biodiversity concerns should be non-negotiable.

Promoting and protecting biodiversity rights are a necessary precondition to sustainable development. As the Commission on Human Rights has stated: "effective popular participation is an essential component of successful and lasting development" and "the human person is the central subject of development and that development policy should therefore make the

---

[153] Chhatrapati Singh, *Common Property and Common Poverty,* India's Forest, Forest Dwellers and the Law, Oxford University Press (1986).

human being the main participant and beneficiary of development."[154] It is in this context that efforts at genuine decentralisation of decision-making power, and the mobilisation of civil society towards issues of ecological sanity and social justice, assume great significance. Such initiatives are taking place in many countries like India, and it would be critical to link them up to the implementation of the CBD.

As countries look back on the decade after Rio, there is a need for a creative reinterpretation of biodiversity rights. In India, the decade of economic reforms has run parallel to the decade after Rio. In areas where biodiversity and economics have crossed paths, it has been to the detriment of the former. Going forward, there needs to be a more equitable mix of rights pertaining to biodiversity, human rights and development. The strict division between environmental law conceived as a rather technical branch of the law which does not include individual rights, and human rights which include the core fundamental rights which guide all other action, needs to be erased. As Hamurabi noted: "Law is for society. So the law will change as and when society changes; changes in the society will not be determined by law."[155]

---

[154] CHR Resolution 1998/72.

[155] As quoted in Bibek Debroy, *In the Dock - Absurdities of Indian Law,* Konark Publishers Pvt. Ltd, Delhi, (2000).

ARTICLE

THE JOURNEY FROM RIO TO JOHANNESBURG: TEN YEARS OF FOREST NEGOTIATIONS, TEN YEARS OF SUCCESSES AND FAILURES

MELANIE STEINER*

I. INTRODUCTION

The Johannesburg Summit, formally entitled the World Summit on Sustainable Development (WSSD) is a significant milestone, marking ten years since the United Nations Conference on Environment and Development (UNCED, or "Rio Summit") and thirty years from the Stockholm Summit on the Human Environment. The WSSD – slated to take place from August 26 through September 4, 2002 – is a critical opportunity for governments and stakeholders alike to come together

* Melanie Steiner is a Policy Adviser with World Wide Fund for Nature (WWF International) and the WWF Coordinator for the World Summit on Sustainable Development. This position requires coordination of the WWF network of offices across the world, as well as provision of policy support to the global WWF programmes on campaigns related to the Summit. In addition, Melanie works part-time on forest advocacy issues for the WWF global forests programme and as a global forest policy consultant for IUCN – the World Conservation Union. Melanie has been following global forest policy negotiations throughout most of the IFF and UNFF negotiations, and completed a Masters thesis on global forest policy at the University of London, UK in 1999. Melanie graduated from law school in Toronto, Canada in 1992 and worked as a commercial litigation lawyer in Canada for six years before going back to school in 1998 to do her Masters degree in environmental law in the UK.

This article is current with respect to the state of negotiations on forestry protection as of February 8, 2002.

and find practical ways to operationalize sustainable development by focusing not only on substantive commitments, but also on means of implementation of commitments already made. The aim is also to improve and reinvigorate the global commitment to a North-South partnership[1] that will help achieve the objectives of conservation and sustainable development.

The WSSD will take place at the Heads of State level, and is intended to be the first ever truly multistakeholder Summit. By this, it is meant that all major sectors of society, including groups such as Non-Governmental Organizations (NGOs) and business and industry, were given an opportunity to help shape the Summit agenda through regional preparatory processes.[2] Furthermore, stakeholders will be able to make commitments and pledges to action at the event itself, since the Summit will not only be focusing on government negotiated consensus documents, but also on innovative and forward-thinking pledges by all.

The past decade has seen a proliferation of environmental treaties and other commitments made, in areas ranging from climate change, to toxics & chemicals, and biological diversity. Forests have been, and continue to be, an extremely contentious and politically sensitive area. Forests were firmly placed on the global agenda during the UNCED process, which was the catalyst for creating a formal discourse on the subject. Despite protracted negotiations in the lead up to, and during the Summit itself, participants remained divided on how to deal with this issue on a global scale. Issues such as sovereignty rights, development goals, trade relationships, and a growing North-South divide that emerged during the Rio process created an inhospitable environment in which to forge consensus on legally binding options.

Accordingly, instead of producing a multilateral environmental treaty, the Rio Summit resulted in a non-legally binding set of forest principles.

---

[1] *See generally* official U.N. website for the Johannesburg Summit 2002 *at* http://www.johannesburgsummit.org (referring to the importance of striking a balance between developing and industrialized countries).

[2] *Id., available at* http://www.johannesburgsummit.org/html/prep_process.html (for particulars on the preparatory process).

These forest principles, agreed at the highest political level, set the stage for future intergovernmental negotiations – namely the Intergovernmental Panel on Forests (IPF) and its successor, the Intergovernmental Forum on Forests (IFF) that deliberated from 1995-2000. Now, nearly ten years after Rio, agreement has finally been reached – for the time being at least – on an appropriate international arrangement on forests. This arrangement has taken the form of a new, institutionalized United Nations Forum on Forests (UNFF), along with a Collaborative Partnership on Forests (CPF) comprised of a number of member organizations, largely drawn from what was previously the Intergovernmental Task Force on Forests (ITFF) formed under the auspices of the IPF process.

After years of intense and complex negotiations, the Johannesburg Summit gives us a lens through which to assess where we have been, and where we are going with respect to the global forest agenda. This "lens" of reflection is in fact part of the WSSD mandate and process, since countries have been called on to assess progress over the past ten years by reporting on impediments to action, solutions, and lessons learned. These country reports are to be submitted to the UN Commission on Sustainable Development (CSD) – acting as the official Summit Secretariat – as part of the official Summit preparations.

Since Rio, a great deal of dialogue and changes in the global forest architecture have occurred, including the growth of regional criteria and indicator (C&I) processes for sustainable forest management, development of new national forest programmes in many countries, and the establishment of the new international arrangement on forests mentioned above. Commitments have been made at all levels, in the form of IPF/IFF proposals for action, adoption of a forest work programme under the Convention on Biological Diversity, and regionally through the C&I processes. Furthermore, new issues have emerged on the scene as being critical post-Rio, including illegal logging/forest law enforcement, forest fires, and the role of forests as carbon sinks with respect to climate change mitigation.

In light of these myriad changes in global forest governance, it is timely to reflect on what has become of the set of forest principles agreed to at Rio. The WSSD process gives us this opportunity, as well as a vehicle through which to make pro-

gress on outstanding issues. Important questions exist, such as whether and how the Forest Principles are being implemented, or whether the have they been superseded and subsumed by other processes and commitments. Has the vision of the Forest Principles been realized, and to what extent? This paper addresses the question of what, if any progress has been made globally to halt and reverse the upward trend in deforestation, looking at this question in the context of the Earth Summit process. In so doing, the evolution of global forest policy over the past decade will be tracked and analyzed, followed by a discussion of where we are headed, and finally what challenges and opportunities exist as we head to Johannesburg and beyond.

II. NEGOTIATIONS OVER THE PAST DECADE

A. THE POLITICS AND OUTPUTS OF THE RIO EARTH SUMMIT (UNCED), 1992

Prior to the Rio conference in 1992, a number of organizations had already turned their mind to the issue of global forest governance, with some going so far as to prepare various legally binding draft forest instruments for use as a template at Rio.[3] With forests firmly on the agenda at Rio, the negotiation of a Global Forest Convention (GFC) became a distinct possibility for the Summit, thereby rounding out the negotiations scheduled to take place with respect to biodiversity and climate change. However, negotiations toward a GFC became quickly sidetracked, due to a growing divide appearing between North-South negotiating partners. The pro-anti GFC debate overtook discussions, but certain highly contentious issues prevented consensus being reached on a legally binding output. Issues such as the underlying causes of deforestation, Northern consumption patterns, and appropriate financial mechanisms and technology transfer, prevented the achievement of consensus on appropriate modalities to govern the world's forests. What resulted instead was the creation of certain "soft law" instru-

[3] *Possible Main Elements of an Instrument (Convention, Agreement, Protocol, Charter, etc.) for the Conservation and Development of the World's Forests*, U.N. Food and Agriculture Organization (FAO) [hereinafter *FAO Draft*] (the most notable draft submitted).

ments, namely Chapter 11 of Agenda 21 (Combating Deforestation),[4] and the "Non-Legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of all Types of Forests" (Forest Principles).[5]

1. Forest Principles

The Forest Principles, while not legally binding, still symbolized a political breakthrough at Rio as representing a first step in consolidating world opinions, and having applicability to all types of forests. Furthermore, the Forest Principles were agreed to at the highest political level, and are – at the very least – morally binding on countries. These Principles were intended to be comprehensive, enshrining concepts ranging from environmental issues like protection, restoration, and the sustainable management of forest resources and forest lands, to the rights of indigenous peoples, participation of local communities and NGOs, and cross-cutting issues such as financial resource transfer, international trade, and capacity-building. More particularly, there are fifteen core principles laid out within the document, meant to provide a holistic picture of the forest regime. Critical aspects of the principles/elements include *inter alia* the following:

- (Stockholm/Rio Principle 21/2): Sovereign right of countries to exploit their own resources pursuant to their own environmental policies and responsibility not to cause damage to others;[6]
- Sovereign right to use, manage and develop forests in accordance with their development needs and level of socio-economic development;[7]

---

[4] *Agenda 21*, U.N. Conference on Environment and Development (UNCED)(Rio de Janeiro, June 14, 1992), Sect. II, Ch. 11, at ¶ 11.1, U.N. Doc. A/CONF.151/26 (1992), *available at* http://www.un.org/esa/sustdev/agenda21text.htm.

[5] *Non-Legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests,* Report of the U.N. Conference on Environment and Development (Rio de Janeiro), Annex III, U.N. Doc. A/CONF.151/26 (Vol III) (1992), *available at* http://www.un.org/documents/ga/conf151/aconf15126-3annex3.htm. [hereinafter *Forest Principles*].

[6] *Id.* at 1.

[7] *Id.* at 2.

- Development of national frameworks for sustainable forest management;[8]
- Recognition of the role of all types of forests in maintaining ecological processes (e.g.: watersheds, biodiversity storehouses;)[9]
- Recommendations on national forest policies;[10]
- Role of forests in meeting energy requirements (bioenergy, fuelwood) and recognition of values of other forest goods and services;[11]
- Promotion of a supportive international economic climate to sustained and environmentally sound development of forests, including promotion of sustainable patterns of production and consumption;[12]
- Promotion of the greening of the world, (e.g.: reforestation, afforestation and forest conservation) as supported by international financial and technical cooperation;[13]
- Provision of new and additional financial resources to enable sustainable management;[14]
- Access to and transfer of environmentally sound technologies and know-how on favorable terms;[15]
- Strengthening of scientific research, forest inventories and assessments carried out by national institutions (e.g.: information exchange, capacity-building;)[16]
- Recommendations on fair trade in forest products and internalizing costs into market forces and mechanisms;[17] and
- Intersectoral recommendations, in particular with regard to pollution control.[18]

---

[8] *Id.* at 3.
[9] *Id.* at 4.
[10] *Id.* at 5.
[11] *Id.* at 6.
[12] *Id.* at 7.
[13] *Id.* at 8.
[14] *Id.* at 9-10.
[15] *Id.* at 11.
[16] *Id.* at 12.
[17] *Id.* at 13.

2. Chapter 11 of Agenda 21

The other forest-specific output agreed at Rio was Chapter 11 of Agenda 21 – Combating Deforestation. Chapter 11 is divided into four sections:

- Sustaining the multiple roles and functions of all types of forests, forestlands and woodlands;
- Enhancing the protection, sustainable management, and conservation of all forests, and the greening of degraded areas, through forest rehabilitation, afforestation, reforestation and other rehabilitative means;
- Promoting efficient utilization and assessment to recover the full valuation of the goods and services provided by forests, forest lands and woodlands; and
- Establishing and/or strengthening capacities for the planning, assessment and systematic observations of forests and related programmes, projects and activities, including commercial trade and processes.

Within those areas, Governments agreed to undertake a wide range of actions, including:

- Establish, expand and manage protected area systems, including conservation of forests in representative ecological systems and landscapes;[19]
- Rehabilitate degraded natural forests to restore productivity and environmental contributions;[20]
- Promote adequate legislation and other measures to control conversion to other types of land uses;[21]
- Ensure the sustainable use of biological resources and conservation of biological diversity;[22] and

---

[18] *Id.* at 15.
[19] Agenda 21, *supra* note 4, at 11.12-11.13.
[20] *Id.*
[21] *Id.* at 11.10-11.19, and 11.29-11.40.
[22] *Id.*

- Developing, adopting and strengthening national accounting programmes for assessing the economic and non-economic value of forests.[23]

To facilitate these objectives, various activities are laid out, including those that are management-related, data and information activities, and international and regional cooperation and coordination.

3. Convention on Biological Diversity and UN Framework Convention on Climate Change

The other two Rio outputs that impact forests are the Convention on Biological Diversity (CBD)[24] and the UN Framework Convention on Climate Change (FCCC).[25] As forests are the greatest protectors and providers of biodiversity, the CBD represents a potentially very useful avenue for action on forests. The Convention also has the strength of being legally binding, although the language in the treaty is fairly permissive. The CBD operates on the basis of five thematic work programmes, of which forest biological diversity is one. For many years, however, discussions and outputs out of the CBD on forests have been quite vague, with the work programme[26] adopted in 1998 at the 4th Conference of the Parties in Slovakia focusing more on research, information collection, case studies

---

[23] *Id.* at 11.20-11.28.

[24] U.N. Conference on Environment and Development: Convention on Biological Diversity (Rio de Janeiro), *reprinted in* 31 ILM 822 (1992).

[25] U.N. Conference on Environment and Development: Framework Convention on Climate Change (New York), U.N. Doc. A/CONF.151.26 (Vol. I), *reprinted in* 31 ILM 849 (1992) (with respect to climate change, the greatest applicability of forests lies in their role as carbon "sinks." This issue became highly charged and one of the most contentious at Kyoto Protocol negotiations over the past few years. Many industrialized, forested countries were looking to use forests to meet their emissions reduction targets, with other countries seeking to limit or even exclude forests from the equation. In the end, sinks have been included in the Protocol, as agreed at the 7th Conference of the Parties (COP-7) held in November 2001 in Marrakech and will therefore take on greater significance. The other related issue is with regard to climate change forest adaptation strategies – in order to minimize damage done to forests as a result of this issue).

[26] Fourth Ordinary Meeting of the Conference of Parties to the Convention on Biological Diversity [hereinafter *COP-4*] (Bratislava, Slovak Republic), Work Programme IV, *adopted by* Decision IV/7 (1998).

and other such scoping activities. However, various recent initiatives have been undertaken by the CBD, with the hope that it will implement more action-oriented policies on forests and fulfill its enormous potential in this regard. One of these actions was the decision by the CBD at its fifth session (COP-5)[27] to, *inter alia,* establish the *ad hoc* Technical Working Group on Forests (AHTEG) to provide advice on scientific programs and international cooperation in research and development and to identify options for the conservation and sustainable use of forest biological diversity. The AHTEG was given a time-limited mandate to meet through to SBSTTA-7,[28] and to develop recommendations for that meeting of scientific and technical experts. The seventh Meeting of SBSTTA in November 2001 developed a draft programme of work for consideration by the COP in April 2002. Among other things, the Programme includes the following elements:

- Guidance for applying the ecosystem approach in forest ecosystems;
- Assessing the adequacy, representativeness and management effectiveness of forest protected areas;
- Restoration practices and systems in accordance with the ecosystem approach;
- Maintaining and restoring forest biodiversity to mitigate impacts of climate change;
- Practices and plans and capacity for prevention of harmful human-induced fires; and
- Implementation of tracking and chain-of-custody systems to tackle illegal trade in forest products.

---

[27] Fifth Ordinary Meeting of the Conference of Parties to the Convention on Biological Diversity [hereinafter *COP-5*] (Nairobi, Kenya, May 2000).

[28] Referring to the Subsidiary Body on Scientific, Technical and Technological Advice, established by Article 25 of the Convention on Biological Diversity. *See* www.biodiv.org/convention/sbstta.asp (specifics on the mandate, activities and outputs of the AHTEG).

Furthermore, a new Experts Group has been formed under the aegis of the CBD, namely the *ad hoc* Technical Expert Group on Biological Diversity and Climate Change. This expert group met in Helsinki, Finland for the first time in January 2002, with a mandate of carrying out a pilot assessment to prepare scientific advice to integrate biodiversity considerations into the implementation of the Climate Change Convention and Kyoto Protocol. This will be a critical first step in a wider assessment of the climate change/biodiversity linkages, on the basis of the ecosystem approach. The Group is expected to meet twice and to report to SBSTTA-8.

In addition to the formation of these expert groups, forest biological diversity was made one of three priority agenda items at the sixth Conference of the Parties (COP-6) scheduled for April 2002 in the Hague, Netherlands,[29] with the goal of shifting the Work Programme from research to action.

In the end, the Rio Summit produced a multitude of forest-related commitments, both legally and non-legally binding, and was a springboard to many other forest-related initiatives and commitments.

Although the Forest Principles were as far as countries were able to go in terms of forging consensus, they did point the way forward, and crystallized a need for further action. It was on the basis of the work done in Rio that formed the basis of the *ad hoc* intergovernmental processes that were to follow.

B. THE INTERGOVERNMENTAL PANEL ON FORESTS (IPF)

The three years following The Rio Earth Summit marked a period of confidence-building among negotiating partners. Following this phase, delegates at the third session of the Commission on Sustainable Development (CSD-3) agreed on the creation of an *ad hoc* Intergovernmental Panel on Forests (IPF), to be given a time-limited, two year mandate to review issues and report back to the CSD in 1997. The IPF was not established to implement the Forest Principles that emerged out of Rio, but rather to take forward the good work that was

[29] Provisional Agenda, Convention on Biological Diversity Conference of the Parties-6, *available at* www.biodiv.org/doc/meetings/cop/cop-06/official/cop-06-01-en.pdf.

started during the 1992 Earth Summit and produce concrete targets, capable of implementation action.

The Panel's programme of work was grouped into five categories:[30]

- Implementation of the UNCED forest-related decisions at the national and international levels, including an examination of sectoral and cross-sectoral linkages;
- International cooperation in financial assistance and technology transfer;
- Scientific research, forest assessment and the development of criteria and indicators for sustainable forest management;
- Trade and environment in relation to forest products and services; and
- International organizations and multilateral institutions and instruments, including appropriate legal mechanisms.[31]

The IPF was innovative inasmuch as it was the first "umbrella" forum, intended to deal comprehensively with all forest-related issues. The point of departure of the IPF was to pursue consensus, formulate options for further action in order to combat deforestation and forest degradation, and to promote sustainable forest management practices of all types of forests. In so doing, the IPF was called upon to take a multidisciplinary approach, stressing participation of all relevant stakeholders.

In order to assist in the completion of this programme of work, an informal, high level Interagency Task Force on Forests (ITFF) was created under the aegis of the IPF to feed into the Panel's various Programme Elements.[32] The Task Force consisted of a group of diverse forest-related bodies, covering

---

[30] *Programme of Work of the Intergovernmental Panel on Forests*, U.N. ESCOR Doc. E/CN.17IPF/1995/2.

[31] *Id. at* http://www.un.org/esa/sustdev/aboutiff.htm.

[32] The Informal, High Level Interagency Task Force on Forests (ITFF), *at* http://www.un.org/esa/sustdev/aboutiff.htm (following the establishment of the IPF in April 1995, the ITFF was set up in Geneva in July 1995 to coordinate the inputs of international organizations to the forest policy process).

the full range of issues being pursued by the IPF, to allow for the widest possible input and participation of stakeholders into the process.[33] The ITFF mandate was to collaborate on the provision of information to the Secretariat, to coordinate the inputs of other international organizations, and to focus on the proposals for action set out by the IPF.

The four IPF sessions debated and contemplated all five programme elements, ultimately agreeing to over one hundred Proposals for Action (PFAs) related to sustainable forest management. In some cases, however, matters were left pending either because consensus could not be reached, or because further analysis and discussion were required. One of the recommendations to emerge out of the final IPF session (IPF-4) was to continue the Intergovernmental dialogue post-IPF in the hopes of achieving consensus on critical issues, including the Programme Element on International Arrangements and Mechanisms, one of the most contentious. The IPF also underscored the need for enhanced international efforts in areas such as governance, international institutions, and organizations and instruments, acknowledging that no single multilateral body was bestowed with the power or mandate to deal holistically with all types of forests. The Panel further acknowledged a number of binding instruments which are relevant to forests, but specifically commented that these instruments do not deal comprehensively or holistically with all forest-related issues.[34] Accordingly, a recommendation was made in the final IPF report to establish a successor body to continue working towards achieving consensus on issues that could not be resolved through the IPF process.

---

[33] *Id.* (ITFF members include: the Centre for International Forestry Research (CIFOR), the UN Food and Agricultural Organization (ITFF Task Manager), the International Tropical Timber Organization (ITTO), the Secretariat of the CBD, the United Nations Department for Social and Economic Affairs (UN/DESA), the United Nations Development Programme (UNDP), the United Nations Environment Programme (UNEP), and the International Bank for Reconstruction and Development (IBRD, or World Bank)).

[34] *Report of the Ad Hoc Intergovernmental Panel on Forests on its Fourth Session* (New York), U.N. ESCOR Doc. E/CN.17/1997/12, at ¶ 140 (1997), *available at* http://www.un.org/documents/ecosoc/cn17/ipf/1997/ecn17ipf1997-12.htm.

C. THE INTERGOVERNMENTAL FORUM ON FORESTS (IFF)

The outcome of the IPF was endorsed by the fifth session of the CSD (CSD-5) in April 1997 and then by the 19th Special Session of the UN General Assembly (UNGASS) a few months later. In light of the issues left outstanding, and in keeping with the recommendations of the Panel, UNGASS recommended that the IPF be continued. The final step was the United Nations Economic and Social Council (ECOSOC) decision made in July 1997 to establish an *ad hoc* Intergovernmental Forum on Forests (IFF) to continue the work of the Panel over the next three years. The mandate of the IFF was threefold:[35]

- Promoting and facilitating the implementation of the proposals for action of the IPF and reviewing, monitoring, and reporting on progress in the management, conservation, and sustainable development of all types of forest;

- Considering matters left pending and other issues arising from the programme elements of the IPF process; and

- International arrangements and mechanisms to promote the management, conservation and sustainable development of all types of forests.

Under these three categories, the IFF was tasked with addressing the following programme elements:[36]

I.a. Promote and facilitate implementation of the IPF's proposals for action;

I.b. Monitor progress in implementation towards sustainable forest management;

---

[35] U.N. G.A. Res. A/Res/S-19/2 (1997). *See also, Proposed Programme of Work of the Intergovernmental Forum on Forests*, U.N. ESCOR Doc. E/CN.17/IFF/1997/2, *available at* http://www.un.org/documents/ecosoc/cn17/iff/1997/ecn17iff1997-2.htm.

[36] *Adoption of the Agenda and Other Organizational Matters*, U.N. ESCOR Doc. E/CN.17/IFF/1997/1, *available at* http://www.un.org.documents/ecosoc/cn17/iff/1997/ecn17iff1997-1.htm.

II.a. Consider matters left pending on the need for financial resources;

II.b. Consider matters left pending on trade and environment;

II.c. Consider matters left pending on the transfer of environmentally sound technologies to support sustainable forest management;

II.d. Consider other issues arising from the programme elements of the IPF process needing further clarification (including underlying causes of deforestation and forest degradation; traditional forest-related knowledge (TFRK), valuation of forest goods and services; assessment; monitoring and rehabilitation of forest cover in environmentally critical areas; forest conservation; forest research; economic instruments; and future supply and demand of wood and non-wood forest products and services);

II.e. Consider forest-related work of international and regional organizations.

III. INTERNATIONAL ARRANGEMENTS AND MECHANISMS TO PROMOTE THE MANAGEMENT, CONSERVATION, AND SUSTAINABLE DEVELOPMENT OF ALL TYPES OF FORESTS.

During the IFF process, over one hundred new proposals for action were agreed to in relation to issues ranging from national forest programmes, to protected areas and forest conservation, funding and incentives for forest conservation, financial assistance and technology transfer, and trade in forest products and services to name a few.

The IFF met four times, with the fourth and final session convening from January 31 – February 11, 2000 in New York. The programme elements discussed at IFF-4 included: promoting and facilitating implementation of the Intergovernmental Panel on Forests' (IPF) proposals for action; monitoring progress in implementation of the IPF proposals; the need for financial resources; trade and environment; transfer of environmentally sound technologies (ESTs) to support sustainable for-

est management (SFM); issues needing further clarification;[37] and international arrangements and mechanisms to promote the management, conservation and sustainable development of all types of forests. Despite the difficulty with a number of these elements, the IFF succeeded in forging consensus and agreed on proposals for action on all programme elements. Protracted and contentious negotiations also ensued on whether a legally binding instrument should constitute part of an international arrangement on forests, ultimately leaving delegates unable to agree on this approach. Instead, a compromise decision was reached – after hours of hard fought negotiations – to establish a United Nations Forum on Forests (UNFF).

This decision to emerge out of the dying moments of IFF-4 marked the culmination of years of hard fought policy discussions. It was further decided that the UNFF should be established to, *inter alia*:

- Facilitate and promote implementation of agreed actions;
- Provide a forum for policy development;
- Enhance coordination among international institutions and instruments;
- Monitor and assess progress through reporting; and
- Strengthen political commitment.[38]

Within five years, the UNFF was further endowed with a mandate to explore the parameters for a possible legal framework (convention) on forests. Thus, nearly ten years following Rio, a home was created to deal holistically with forest-related issues – the underlying premise behind the Forest Principles.

---

[37] *Report of the IFF on its Fourth Session*, U.N. ESCOR Doc. E/CN.17/2000/14 (issues needing further clarification were: underlying causes of deforestation; traditional forest-related knowledge; forest conservation and protected areas; forest research; valuation of forest goods and services; economic instruments; future supply of and demand for wood and non-wood forest products; and assessment, monitoring and rehabilitation of forest cover in environmentally critical areas).

[38] *Id.* (regarding particulars of the IFF decision to establish the UNFF).

IV. THE UNITED NATIONS FORUM ON FORESTS (UNFF)

The UNFF was established to create an umbrella forum that would house all global forest-related issues and create cohesion in the sector. Based on the outputs of the first substantive session held in June 2001 in New York, it has become clear that implementation of forest-related commitments will be spearheaded by the Forum. As a result of the UNFF's critical role, this paper assesses separately the key procedural and substantive aspects of the new international arrangement on forests.

A. BIRTH OF THE UNFF

On September 22, 2000, the Economic and Social Council of the UN (ECOSOC) unanimously adopted a Resolution endorsing IFF-4's recommendation to establish the UNFF.[39] The Resolution outlined the main objective of the UNFF, namely to promote the management, conservation and sustainable development of all types of forests and to strengthen long-term political commitment to this end. The UNFF was established as a subsidiary body of ECOSOC, comprised of all member states of the UN and of the specialized agencies, with full and equal participation, including voting rights. The Resolution affirmed the transparent and participatory nature of the UNFF, stipulating furthermore that the same arrangements that apply to the CSD will also apply to the UNFF. This guarantees the participation of NGOs and other stakeholders, building on the format that was used throughout the IPF/IFF process.

The underlying foundation of the UNFF as codified in the Resolution is, among other things, the Rio Forest Principles document itself. As the Resolution states:

> [T]he UNFF will work on the basis of a multi-year programme of work, drawing on the elements reflected in the Rio Declaration on Environment and Development, the Forest Principles, chapter 11 of Agenda 21, and the intergovernmental Panel on

---

[39] *See* E.S.C. Res. E/2000/35, *reprinted in* REPORT OF THE INTERGOVERNMENTAL FORUM ON FORESTS ON ITS FOURTH SESSION, U.N. ESCOR DOC. E/CN. 17/2000/14 (2000), at APPENDIX, §III, 3(a), *available at* http://www.un.org/documents/ecosoc/cn17/2000/ecn172000-14.htm.

> Forests/intergovernmental forum on forests proposals for Action.[40]

This paragraph of the Resolution is of paramount importance, as it imbues the UNFF with the mandate of overseeing a programme of work that includes implementing the Rio Forest Principles. The Multi-year Programme of Work (MYPOW) is the "roadmap" of the UNFF, and the vehicle through which action will be taken. In other words, it is logical to deduce that the implementation of the Forest Principles, among other things, is being led by the UNFF pursuant to its MYPOW.

As the "implementer" of global forest commitments – inasmuch as they can be implemented by international level activity – the UNFF is of supreme significance. This places quite a burden on a new Forum that will be in its infancy for some time, and is still feeling its way.

B. FUNCTIONS OF THE UNFF

The specific functions of the UNFF, as laid out in the ECOSOC Resolution include the following:

- To facilitate and promote the implementation of the IPF/IFF Proposals for Action as well as other actions which may be agreed upon, including through national forest programs and other integrated programs relevant to forests;[41]

- To provide a forum for continued policy development and dialogue among governments, which would involve international organizations and other interested parties, including major groups as identified in Agenda 21;[42]

- To enhance cooperation as well as policy and program coordination on forest-related issues among relevant international and regional organizations, institutions and instruments, as well as contribute to synergies among them, including coordination among donors. To also foster cooperation, including North-South and public-

---

[40] *Id.* at appendix, §IV, 6.
[41] *Id.* at appendix, §II, ¶2(a).
[42] *Id.* at appendix, §II, ¶2(b).

private partnerships at national, regional and global levels;[43]

- To monitor and assess progress at the national, regional and global levels through reporting by governments, as well as by regional and international organizations, institutions and instruments;[44] and

- To strengthen political commitment to the management, conservation, and sustainable development of all types of forests through ministerial engagement.[45]

These functions provide most of the building blocks of an effective mechanism – implementation, continued policy development, and monitoring, assessment and reporting of commitments. Furthermore, the UNFF is given the mandate to act as a coordinating mechanism in terms of global forest governance. However, for its various functions to be carried out, a number of practical details will have to be addressed, including, for instance, ensuring sufficient institutional capacity to review and assess data, and elaborating reporting guidelines and some means of compliance. One of the concerns is that much time will be spent doing just that – ironing out the details of the forum over the next five years, without the concomitant action taken on implementation. In addition, by relying on voluntary and entirely country-driven priority-setting and reporting decisions, it is still unclear what deliverables the UNFF will be able to offer by 2005 and what value it will add.

C. MULTI-YEAR PROGRAMME OF WORK (MYPOW) AND PLAN OF ACTION (POA)

The ECOSOC Resolution states that the Forum will work on the basis of a MYPOW, derived from the Rio outputs and IPF/IFF proposals for action. The Resolution also set out that the UNFF will develop a plan of action (PoA) to guide the implementation of the proposals for action. At the first substantive UNFF session that took place in June 2001 in New York,

---

[43] *Id.* at appendix, §II, ¶2(c)-(d).

[44] *Id.* at appendix, §II, ¶2(e).

[45] *Report of the Intergovernmental Forum on Forests on its Fourth Session*, U.N. ESCOR Doc. E/CN. 17/2000/14 (2000), at APPENDIX, §II, ¶2(f), *available at* http://www.un.org/documents/ecosoc/cn17/2000/ecn172000-14.htm.

tireless negotiations were undertaken to clarify the purpose, scope, and content of both of these documents, with initial confusion as to how the two related to each other. In the end, the MYPOW is seen as the overarching policy document to guide the process in general, with the PoA being part of the MYPOW, and more specifically, its practical implementing tool.

1. MYPOW

The MYPOW sets out the elements that each UNFF session will focus on, as well as common, cross-cutting elements to be addressed at each session.[46] As stated above, this document is the UNFF roadmap, setting out the issues that will come up at each session through 2005. These include:

- UNFF-2: Combating deforestation and forest degradation; forest conservation and protection of unique types of forests and fragile ecosystems; rehabilitation and conservation strategies for countries with low forest cover; rehabilitation and restoration of degraded lands; promotion of natural and planted forests; concepts, terminology and definitions;

- UNFF-3: Economic aspects of forests; forest health and productivity; maintaining forest cover to meet present and future needs;

- UNFF-4: Traditional Forest Related Knowledge (TFRK); forest-related scientific knowledge; social and cultural aspects of forests; monitoring, assessment and reporting, and concepts, terminology and definitions; criteria and indicators of sustainable forest management.

The final session (UNFF-5) will include a review of progress, including considering the parameters of a mandate for

[46] *See Multi-year Programme of Work of the United Nations Forum on Forests: Report of the Secretary General,* U.N Forum on Forests, (First substantive session, New York), U.N. ESCOR Doc. E/CN.18/2001/5 (2001), *available at* http://www.un.org/esa/sustdev/unffdocs/ecn182002_1.pdf (common items for each session include: multi-stakeholder dialogues; enhanced cooperation and policy and program coordination, inter alia with the CPF; country experiences and lessons learned; emerging issues relevant to country implementation; intersessional work; monitoring, assessment and reporting; implementation of the Plan of Action; promoting public participation; national forest programmes; trade; and enabling environment).

developing a legal framework on all types of forests. This review of progress is part of the UNFF's "monitoring, assessment, and reporting" (MAR) function, one aspect of which is to review the effectiveness of the international arrangement as a whole.

2. Plan of Action

The first substantive session of the UNFF (UNFF-1), held from June 11 - 22, 2001 in New York, adopted a 'Plan of Action', whose stated purpose is to guide more effective and coherent implementation of the IPF/IFF proposals for action. The Plan of Action refers, *inter alia,* to national prioritisation of proposals for action to be implemented, national forest programmes, voluntary reporting, allocation of financial resources and the role of trade in implementation. Currently, it is constituted as a framework for encouraging implementation, rather than a plan of what will be implemented, by whom, and with what resources. The Plan of Action (PoA) is a short document, meant to guide the effective and coherent implementation of the IPF/IFF proposals for action. The PoA will be put forward for endorsement at UNFF-2 in New York[47] at the high-level ministerial segment slated to take place during the second week of the session. The ministerial segment will be of particular import, as the key issue on the agenda will be UNFF inputs into the Johannesburg Summit.

The actual Plan is laid out in an Annex to the Decision on the PoA, and stipulates *inter alia*:

- The responsibility for implementation of the proposals for action lies with countries, which will set their own priorities, targets and timetables;

- Implementation of the PoA will require establishment of national focal points, cooperation among the CPF members, bilateral donors and countries, and public/private partnerships, and active stakeholder participation;

---

[47] *Provisional Agenda, U.N. Forum on Forests* (Second Session, New York) U.N. ESCOR Doc. E/CN.18/2002/1, *available at* http://www.un.org/esa/sustdev/unffdocs/ecn182002_1.pdf. UNFF-2 was held from March 4-15, 2002. (originally scheduled to occur in San Jose, Costa Rica, the session was moved to New York, at UN headquarters).

- Suggestion to cluster the proposals for action,[48] possibly according to the 16 elements listed in the report of the Secretary General;[49]
- Agreement to develop or strengthen, as appropriate, national forest programmes;
- Commitment to report progress on implementation on a voluntary basis; and
- UNFF activities include meetings, country-led initiatives and other intersessional work.

D. THE COLLABORATIVE PARTNERSHIP ON FORESTS (CPF) – ITS ROLE, AND RELATIONSHIP TO THE UNFF

In addition to the decision to establish the UNFF, the ECOSOC Resolution further invited heads of UN organizations, as well as heads of other relevant international and regional organizations, institutions and instruments to form a collaborative partnership on forests (CPF) akin to the ITFF that was established to support the work of the Panel. The

---

[48] *Towards the Development of the United Nations Forum on Forests Plan of Action: Report of the Secretary-General*, U.N. Forum on Forests (First Substantive Session, New York), U.N. ESCOR Doc. E/CN.18/2001/6 (2001), at n. 6, *available at* http://www.un.org/esa/sustdev/unffdocs/ecn182002-6.pdf, *referring to* The Intergovernmental Panel on Forests and the Intergovernmental Forum on Forests: Summary of Proposals for Action, Australia Department of Agriculture, Fisheries And Forests (2000), *available at* http://www.affa.gov.au/content/publications.cfm?category=forestry (one example of this is the clustering exercise undertaken by the Government of Australia, whereby 153 IPF proposals for action were summarized, and subsequently consolidated. The idea was to group similar or related actions together and thereby remove duplication. Related thematic headings were incorporated into major categories, e.g.: implementation within countries; international cooperation; trade and environment; and work of international organizations.).

[49] *Id.* at box 1. (Set of 16 Elements based on *U.N. Conf. On Environment and Development, IPF and IFF Deliberations on Forests.* This includes: formulation and implementation of national forest programmes; promoting public participation; combating deforestation and forest degradation; traditional forest related knowledge (TFRK); forest-related scientific knowledge; forest health and productivity; criteria and indicators for sustainable forest management; economic, social and cultural aspects of forests; forest conservation and protection of unique types of forests and fragile ecosystems; monitoring, assessment and reporting; and concepts, terminology and definitions; rehabilitation and conservation strategies for countries with low forest cover; rehabilitation and restoration of degraded lands, and the promotion of natural and planted forests; maintaining forest cover to meet present and future needs; financial resources; international trade and sustainable forest management; international cooperation in capacity-building and access to, and transfer of environmentally sound technologies to support sustainable forest management).

CPF is the second pillar of the new international arrangement, and is meant to work in tandem with the UNFF. More particularly, the CPF is called upon to support the work of the UNFF and to enhance cooperation and coordination among participants. The ECOSOC Resolution further recommends that the CPF facilitate and promote coordinated and cooperative action, including joint programming, and facilitate donor coordination. The CPF is comprised of the eight original members of the ITFF, plus three additional members so far: the Global Environment Facility (GEF), the Framework Convention on Climate Change (FCCC), and the Convention to Combat Desertification (CCD). Although there is broad membership, it is not so broad as to include NGOs or intergovernmental organizations such as the World Conservation Union. It remains to be decided how and to what extent broader stakeholder input will be received and taken into account by the CPF, as the exact modalities of this relationship have yet to be elaborated.

The inaugural meeting that established the CPF was held on April 4 – 5, 2001 in Rome. Among other things, the CPF agreed to develop a Work Plan based on the UNFF MYPOW and Plan of Action. At the first substantive session of the UNFF (UNFF-1) in June 2001, the Decision on the CPF[50] invited the CPF and member organizations to:

- Facilitate and support both the UNFF MYPOW and implementation of the PoA;
- Facilitate and/or assist countries' efforts to implement the IPF/IFF proposals for action;
- Continue implementing those IPF/IFF proposals for action specifically targeted to its member organizations; and
- Report its progress on the above at each UNFF session.

---

[50] *See Provisional Agenda,* U.N. Forum on Forests, U.N. ESCOR Doc. E/CN.18/2001/4 (2001), at item 4; Initiation of the work of the United Nations Forum on Forests with the Collaborative Partnership on Forests, *available at* http://www.un.gov/esa/sustdev/unffdocs/ecn182001-4.pdf.

In addition, the Decision requests that the CPF member organizations assist the UNFF to monitor, assess, and report on progress towards its objectives, including the use of criteria and indicators for sustainable forest management.

In terms of global forest governance, the CPF could play a pivotal role given the wealth of data and expertise available from member organizations. This could be an important role in the coming months, given that one of the key items likely to be on the agenda for the Johannesburg Summit is international sustainable development governance, and improving synergies and collaboration between institutions, instruments and organizations. The CPF is well placed to act as a bridging mechanism in the forest sector, but it remains to be seen how this will be done, whether relevant major group input will be well received, and whether there is sufficient institutional capacity to make this happen. Another complicating factor is a jurisdictional issue, given that each CPF member organization is accountable to its own individual governing body and not to the UNFF. As such, it will be a prerequisite to action that each member institution and instrument make formal decisions on how to interact with the UNFF, including investing adequate resources to participate and take action.

V. EFFECTIVENESS OF THE EXISTING REGIME – HAVE WE FAILED THE SPIRIT OF THE RIO FOREST PRINCIPLES?

At the outset, it should be stated that there is difficulty in assessing the effectiveness of the Forest Principles in and of themselves. The Principles that derived from the Rio Earth Summit include various consensus elements needed to ensure the conservation and sustainable development of all forests. However, much of the wording in this document is in the form of general declarations, such as the need to promote a supportive economic climate, confirmation of the role of forests in maintaining ecological processes, efforts towards reforestation, afforestation and forest conservation, and the like. The Principles are short on both specifics and implementation action, leaving it quite difficult to gauge progress.

The importance of the Forest Principles is that they represent a point of departure for achieving sustainable forest management and that they are in the form of a consensus document agreed on at the Heads of State level. Furthermore, the Prin-

ciples acted as a springboard to years of negotiations and ensuing commitments in the form of IPF/IFF proposals for action. Having said this, others are of the view that the inability to forge agreement on a binding framework for forests evidenced a lack of political will and resulted in a failure at Rio.

The Forest Principles, together with these proposals for action, constitute a holistic view of the forest regime and the work that needs to be done to achieve sustainable forest management. It is, therefore, difficult to assess these items in isolation, as they are all constituent pieces of global forest governance more broadly.

A. ACHIEVEMENTS AND CONSTRAINTS IN THE FOREST SECTOR SINCE RIO

One of the most important questions, and markers on progress, is the rate of change in forest area globally. The Untied Nations Food and Agricultural Organization (FAO) report on State of the World's Forests 2001[51] measured changes in reforestation, deforestation and afforestation in order to determine the amount of forest cover change that has taken place over the past ten years. The report confirms that the net change in forest area during the 1990s was an estimated loss of 9.4 million hectare annually – a staggering sum.[52] This represents the difference between the global deforestation rate of 14.6 million hectare per year and the rate of increase of 5.2 million hectare per year. This figure suggests that despite improvements in some areas, forests are still very much in decline, leaving a great deal more to be done.

Activities at all levels have been taking place over the past decade in an attempt to reverse the rate of forest loss and maintain the health and productivity of forest ecosystems. At the international level, the UNFF represents the most significant achievement. Regionally, the criteria and indicator (C&I) processes have been widely adopted, as a means to foster a common understanding of how to measure and make progress

---

[51] *State of the World's Forests*, U.N. Food and Agricultural Organization (2001), *available at* http://www.fao.org/docrep/003/y0900e/y0900e00.htm.

[52] *Id.* at pt. III, National-Level Efforts to Support Sustainable Forest Management; Forest Area Trends, 1990-2000.

towards sustainable forest management (SFM). Currently, there are nine C&I processes in effect,[53] representing approximately 150 countries and covering much of the world's forests. These processes outline the fundamental elements of SFM, including, for instance, maintenance of forest resources and their contribution to the global carbon cycle; forest health and vitality; biodiversity; maintenance of the productive functions of forests; socio-economic functions and conditions; and the political, legal and institutional frameworks for forest conservation and sustainable forest management. These regional processes have already created a sort of "common framework" and language that can be very useful in terms of understanding the state of the world's forests. Most countries report to at least one of the nine processes on at least some indicators for all of the criteria. There is, however, some variability in that some criteria have been reported on more than others (for instance, socio-economic data is weak). Many of these processes have developed reporting guidelines that can be very useful in making progress toward SFM.

In terms of domestic activities, a number of successes have taken place, including increases in networks of ecologically representative forest protected areas, successful experiences with community involvement in forest management, and an increase in the area of forests certified as sustainably managed. Furthermore, there has been a move towards developing and implementing national forest programmes (NFPs), which are intended to be an iterative, participatory process encompassing the full range of policies, institutions, plans and programmes to manage, use, protect and enhance forest resources nationally. Both the World Bank and the FAO have set up multimillion-dollar facilities to fund NFP processes in developing coun-

---

[53] *Id.* at pt. III, National-Level Efforts to Support Sustainable Forest Management; Criteria and Indicators for Sustainable Forest Management (includes the following: African Timber Organization (ATO), Regional Initiative for the Development and Implementation of National Level Criteria and Indicators for the Sustainable Management of Dry Forests in Asia; Dry-Zone Africa Process on Criteria and Indicators for Sustainable Forest Management; International Tropical Timber Organization (ITTO); Lepaterique Process of Central America on Criteria and Indicators for Sustainable Forest Management; Montreal Process on Criteria and Indicators for the Conservation and Sustainable Management of Temperate and Boreal Forests; the Pan-European Forest Process on Criteria and Indicators for Sustainable Forest Management (formerly the Helsinki Process); Tarapoto Proposal of Criteria and Indicators for Sustainability of the Amazon Forest; the Near East Process, and CIFOR).

tries.[54] Furthermore, a great deal of political momentum has been shored up to develop NFPs, given that all countries at UNFF-1 unequivocally agreed to develop NFPs, noting that they are one of the primary means of implementing the IPF and IFF Proposals for Action.[55] NFPs are increasingly being seen as the primary tool, if not a prerequisite, to taking forest action domestically. This includes action on implementing the IPF/IFF proposals for action and Rio outputs to achieve sustainable forest management more broadly. The general principles with respect to NFPs are that they should be a participatory, flexible, country-driven process, taking into account intersectoral approaches. Specific elements of a NFP include, *inter alia*,

- Systematic evaluation, planning and implementation of the IPF/IFF Proposals for Action through national plans and processes;
- Action plan (timetables, goals);
- Appropriate participatory mechanisms and effective partnerships;
- Decentralization (where applicable) and regionalization through empowerment of regional and local government structures;
- Conflict-resolution schemes;
- Capacity-building programme and awareness-raising;

---

[54] *See generally id.* at pt. III, National-Level Efforts to Support Sustainable Forest Management; National Forest Programmes. (PROFORII, hosted by the World Bank, is expected to spend US $20 million over 5 years on NFPs in 6-8 "partner countries", while the FAO is launching an NFP Implementation Facility under a new "twinning arrangement" with PROFOR II. The budget is set at US $32 million).

[55] *Towards the Development of the United Nations Forum on Forests Plan of Action: Report of the Secretary-General, supra* note 48, at 8. (The requirement to develop and implement NFPs is now unequivocal. All countries " will develop or strengthen, as appropriate, national forest programmes, as defined in the IPF/IFF Proposals for Action, or other integrated programs relevant to forests, with the aim of achieving an holistic and comprehensive approach to sustainable forest management.") *See also, Multi-year programme of work of the United Nations Forum on Forest: Report of the Secretary General, supra* note 46. (under the UNFF MYPOW, NFPs were chosen as a cross-cutting item, meaning that they will come up for discussion at each UNFF session through to 2005, rather than at a single session only).

- Monitoring and evaluation systems, including use of Criteria and Indicators;
- Policy, legislative and institutional reform;
- Recognition and respect for traditional and customary rights; and
- Secure land tenure agreements.[56]

Many of these elements relate back to certain of the Rio Forest Principles. As such, NFPs can be a useful implementing tool and can create a bridge between global commitments and national action. However, there remain certain practical questions in terms of operationalizing NFPs, including how to translate these largely policy frameworks into on the ground action. Furthermore, there is no commonly agreed definition, nor any system of "quality control" or way of properly measuring results. It remains to be seen whether NFPs will be much improved from the previous Tropical Forestry Action Plan (TFAP) of the FAO[57], since most new NFP processes are still in their infancy.

A number of multistakeholder processes have also taken place, signaling the importance of engaging all actors if we are to make real and lasting progress. One such example was the Yaounde Summit, held in March 1999 and including five African Heads of State who pledged to protect vast tracts of forests in the Congo Basin. The innovative aspect of the Summit and resulting Declaration was that this event took place in partnership with governments of the region, and other organizations including the World Bank/WWF Alliance for Forest Conservation and Sustainable Use, and Conference of the Central African Moist Forest Ecosystems (CEFDHAC) and the Interna-

---

[56] *See generally* http://www.fao.org/forestry/foris/index.jsp?start_id=7208 (for specifics on NFPs).

[57] *See generally id.* (TFAP was adopted by the World Forestry Congress in June 1985 as an international framework for forest-related action. A trust-fund was established and managed by the FAO to fund these programmes. The TFAP ended up failing, largely because these programmes were not sufficiently flexible, country-driven, participatory or inter-sectoral. They were narrow in scope, and essentially donor-led. As such, "new" NFPs are meant to learn from these experiences, although evidence indicates that operationalizing many elements are extremely difficult.).

tional Union for Conservation of Nature and Natural Resources (IUCN) – World Conservation Union.[58]

The least amount of progress has been made in the forest sector in the area of capacity-building, cooperation, technology transfer and trade.[59] It has been noted that "trade, finance, and transfer of technology have been among the most difficult areas to reach consensus on effective programmes of action within the IPF/IFF processes . . . partly because the issues were wider than to be able to be resolved within forestry fora."[60]

Among one of the more critical emerging issues that has been garnering much attention of late is the issue of illegal logging, and forest law enforcement more broadly. It has been estimated that in many countries, illegal logging is similar in scope to legal production, while in others, it exceeds legal logging by a substantial margin.[61] This problem can substantially undermine progress made on other issues, including establishment of protected areas. Furthermore, governments in some cases are losing hundreds of millions of dollars annually based on illegal activities in the forest sector. This issue did not receive much attention until recently, but may well be discussed at the World Summit. The Chairman's Paper that emerged out of the second global preparatory session for the World Summit on Sustainable Development (WSSD) included language on illegal trade in timber and non-timber forest products, indicating that this issue may be taken up at the Summit, if it survives negotiations at the third and fourth global PrepCom in March and May 2002 respectively.[62]

It is anticipated that actions at all levels, and involving all stakeholders, will continue in the years to come. This will re-

---

[58] Other partners included: the DGIS – WWF Tropical Forest Portfolio in Gabon. WWF Belgium in partnership with the European Commission and DGIS; ECOFAC: in partnership with the European Commission, USAID and CARPE.

[59] *See Rio+10: Task Manager Report on Review of Progress in Implementing UNCED Agenda 21 Chapter 11 (Combating Deforestation) and Forest Principles*, U.N. FAO report (2001), *available at* http://www.fao.org/forestry/foda/international/rio_10-e.stm.

[60] *Id.* at 25.

[61] World Bank, Forest Sector Review (New York: World Bank, 1999), at xiii.

[62] *See Chairman's Paper*, Commission on Sustainable Development acting as the Preparatory Committee for the World Summit on Sustainable Development, U.N. Doc. A/Conf.199/PC/L.1 (2002) at §IV, ¶16(c), *available at* http:// www.johannesburgsummit.org/html/documents/prep2final_papers/conf199pcl1_eng.pd.

quire strengthening and forging new and innovative partnerships, ensuring sufficient resources to facilitate implementation action, and coordinating and harmonizing activities to optimize results. Work toward implementing the Forest Principles and IPF/IFF Proposals for Action will continue, as guided by the UNFF and CPF. Of course, there will need to be flexibility to take on new and emerging issues, including illegal logging and others, in order to round out the global agenda.

B. IMPLEMENTATION ACTION AND THE UNFF

The UNFF was created based on the notion that there was no overarching framework for forests, nor any organization endowed with the mandate to deal holistically with all kinds of forests. This piecemeal approach to forest governance, it was argued, is ineffective, inefficient, and confusing. The backbone of much of the policy analysis and discussion that has taken place over the past decade has accordingly been about the existing gaps, overlaps, and areas of needed coordination, as well as weaknesses and opportunities in the global forest regime.

Now, with the establishment of the UNFF, a unique opportunity has arisen to better coordinate existing global forest obligations in the hopes of making progress toward sustainable forest management. The UNFF is the first globally agreed-upon permanent mechanism for forests. And, as it is the new home to forest issues worldwide, it is well positioned to cure some of the ills of the previous regime, by improved governance and a stitching together of the fractionated approach that has pervaded global policy until now.

Having said this, many questions remain as to how the UNFF will do its work, and whether it is even capable of delivering action on the ground. The MYPOW and PoA make clear that the responsibility for prioritizing and delivering action lies with countries.

The UNFF is not a panacea; still, there is the opportunity for it to serve as a central coordinating mechanism and contact point for future policy development and guidance in the forest sector. Further, the UNFF, along with the CPF, will hopefully facilitate an open exchange of information, so that innovations, experiences and data can be shared. Collectively, the various instruments, agreements, processes and initiatives represent all of the priority areas of concern, and constitute – in conjunc-

tion with the UNFF – a map for future action. It remains to be seen how all of these different sectors will be linked, but hopefully, in the spirit of cooperation, the attitude displayed in the years to come will be one of action and teamwork in the global forest sector.

VI. THE WORLD SUMMIT ON SUSTAINABLE DEVELOPMENT (WSSD): SIGNIFICANCE AND OPTIONS FOR FORESTS

The WSSD is intended to be quite different from the Summit held in Rio ten years ago, primarily because the former is more about operationalizing sustainable development than it is about negotiating new agreements. In this regard, the WSSD has a difficult, ambitious road ahead of it, since it is much easier to speak of success when looking at concrete outputs such as treaties. Key Summit goals, in this regard, include identifying practical solutions that will accelerate the implementation of Agenda 21; forging a new North-South partnership for sustainable development that is balanced and equitable; and addressing poverty and development issues in tandem with environmental concerns. The Johannesburg event will need to move from talk to action, from commitment to implementation. This is nowhere more critical than in the forest sector, where years of discussions and negotiations have led to a myriad of commitments that are now crying out for progress to be made.

A. EMERGING SUMMIT AGENDA

The process of agenda-setting for the Johannesburg Summit has been to take a bottom-up approach. The issues on the formal agenda, which has yet to be set, commenced through a series of regional and sub-regional preparatory processes. In each region of the world – broken up into Latin America/Caribbean (LAC), Africa, Asia/Pacific, West Asia, and Europe/North America – regional and sub-regional preparatory meetings were held during late 2001. The idea was to hold multistakeholder meetings that would result in regional priorities, or "platforms for action". These platforms include key challenges, opportunities and obstacles faced since Rio, as well as priorities for future action. In addition to these preparatory meetings, each region held eminent persons' round tables,

meant to bring together experts from each region to contemplate key issues and provide suggestions for action.[63]

The final reports from all of these meetings have been transmitted to the global WSSD preparatory process and are meant to shape the nature and scope of the final Johannesburg agenda. During the second global WSSD Preparatory Committee (Prepcom) held from January 25 – February 8, 2002 in New York, the Chairman prepared a draft paper as a basis for negotiations, which was intended to take into account, in a balanced fashion, the priorities that have emerged from the regions. Delegations "discussed" the paper, making modifications to it during the second week of the PrepCom. More targeted negotiations will take place at the third PrepCom, slated for March 25– April 5, 2002. As it stands, a number of paragraphs in the Chairman's paper refer specifically to forests, including:[64]

- Enhancing the implementation of the IPF and IFF proposals for action, as included in the UNFF Plan of Action, and intensify efforts for the management, conservation and sustainable development of forests, in particular the rehabilitation and restoration of degraded forests and lands;

- Enhance cooperation, coordination and synergies among international organizations and instruments related to forests, in the CPF; and

- Address the issue of illegal trade in timber, non-timber forest products, and genetic resources.

In addition, the Chairman's paper devotes several paragraphs to the Convention to Combat Desertification, as well as related natural resource issues such as agriculture and freshwater.

Although there is some reference to forests in the existing Summit text, this issue has not received the same degree of attention as other environmental issues such as energy and climate change, or freshwater resources. This lack of direction

---

[63] Official Johannesburg Summit website, *supra* note 1, *at* www.johannesburg summit.org/html/documents/prepcoms.html (for reports of all of the sub-regional and regional meetings).

[64] *Chairman's Paper, supra* note 62, at §IV, 16(a)-(c).

may be due in part to the fact that many countries are awaiting the outcome of the high-level ministerial segment at UNFF-2 to provide guidance. With both the UNFF and the Convention on Biological Diversity COP-6 in April 2002 debating forests, additional inputs into the WSSD agenda could be generated following these conferences.

The final WSSD global preparatory meeting will be held in Jakarta, Indonesia from May 27– June 7, 2002. It is possible that a successful UNFF-2 session may catalyze action on forests at WSSD PrepCom 3 and 4. Alternatively, forests may receive limited attention in Johannesburg other than in the way of new partnership and stakeholder announcements. What is needed is some direction, given that a new home for forests now exists in the UNFF, and that the possibility of commencing negotiations on a legally-binding instrument will likely not be considered until the final session of the UNFF (UNFF-5) in 2005.[65]

B. POTENTIAL SUMMIT OUTPUTS – OPPORTUNITIES FOR FORESTS IN JOHANNESBURG

The second WSSD PrepCom, which was intended to be more of a backward-looking assessment of progress, actually took on greater significance than initially contemplated. With the Chairman's paper setting the stage for agenda-setting, governments and other stakeholders received an initial look at what might be expected in Johannesburg. The outputs of the Johannesburg Summit in relation to forests will take one of three forms:

- A Political Declaration at the Heads of State level – which should establish the global political base for moving towards sustainable development globally in the 21st century;

- The "Johannesburg Programme of Action" (JPOA) – which is expected to establish the enabling framework and means of implementation for sector and issue-

---

[65] *See generally, Multi-year programme of work of the United Nations Forum on Forest: Report of the Secretary General, supra* note 46 (pursuant to the UNFF MYPOW).

specific targeted achievements from governments and will be negotiated as a consensus document. The idea is for the JPOA to contain deliverable, time-bound commitments, with clear means of implementation. The Chairman's paper that emerged at PrepCom 2 is expected to form the basis of the JPOA; or

- Stakeholder commitments – which are likely to consist of a series of partnerships made by individual governments or groups of governments, with the involvement of major groups. These commitments are non-negotiated, for which there will be specific "pledging" events at the Summit to facilitate the process.[66]

The Summit could therefore result in certain consensus-based commitments, both on means of implementation such as financing and technology-transfer, as well as on substantive issues such as illegal logging or restoration. In addition to this, there will be ample opportunity for governments, together with companies, international institutions, and other stakeholders to announce innovative commitments on issues that do not require consensus. Some of the types of action being discussed by participants in the WSSD preparatory process include:

- Universal ratification of the Convention on Biological Diversity and other relevant conventions;

- Adoption of programmes for the conservation and sustainable use of forest biodiversity, e.g. by CBD COP-6;

- Endorsement and further development of the UNFF Plan of Action, including further international efforts on means of implementation including capacity building, financial resources and technology transfer;

---

[66] Official Johannesburg Summit website, *supra* note 1 *at* http://www.johannesburgsummit.org/html/documents/prepcom2.html (for the outputs of PrepCom 2, including the Chairman's Paper, the Chairman's Summary of PrepCom 2, the Chairman's Summary of the Multi-stakeholder Dialogue Segment, and Proposals for Partnerships/Initiatives to Strengthen the Implementation of Agenda 21). Information on outputs was also obtained by the author through informal discussions with a variety of participants at PrepCom 2.

- Holistic efforts to address illegal logging, illegal trade in timber, non-timber forest products and genetic resources;

- Increased attention to underlying causes of deforestation, e.g. mainstreaming forest issues in macro-level planning;

- Commitment to remove perverse incentives that reward unsustainable practices;

- Agreement on financial resources and valuation of forests;

- Mechanisms for strengthened stakeholder participation;

- Announcements by individual or groups of governments, companies, international institutions and NGOs of specific initiatives on forests, e.g. on forest landscape restoration, mountain catchments, steps toward credible certification, etc.;

- Agreement on new issues (e.g.: energy/transport) which could take the form of negotiated commitment by governments, and/or commitments by other stakeholders such as business and industry (either individual commitments, or sectoral);

- Launch of new multistakeholder partnership initiatives;

- Agreement on new institutions and/or new mandates for existing institutions; and

- New or reformed international legal instruments or institutions, which could link existing instruments or fill any gaps that exist in the current regime, and could possibly include the launch of new negotiation processes.

This menu of options for Johannesburg presents interesting opportunities in the forest sector. For instance, announcing new multistakeholder partnership initiatives, agreement on financing and other implementation issues, new government announcements on protected areas and on forest certification, and on global governance issues including harmonization of reporting formats and the like. Most important will be to find

ways to expedite the implementation of the Rio outputs and subsequent IPF/IFF proposals for action.

VII. CONCLUSION

Over the past ten years, a multitude of agreements and have been made on forest-related issues. We are now left with a legacy of proposals for action and other commitments, as well as a roadmap on implementation in the form of a UNFF programme of work. However, forests continue to degrade, implementation remains weak, and financial resources are scarce. The Johannesburg Summit represents one milestone, on the way to other important global events including future UNFF and CBD sessions, and the XII World Forestry Congress[67] and the V World Parks Congress in 2003.[68] The WSSD could be leveraged to make progress on critical international issues such as means of implementation of forest-related commitments and on other issues that require global action. Such other issues include forest law enforcement, international trade in forest products, harmful subsidies in the forest sector, and conservation issues such as designating new protected areas and undertaking new restoration initiatives.

While we have made a certain degree of progress on forest-related issues since the Rio Summit, evidence continues to show that forests are in decline. Just like Rio was a springboard to a decade of negotiations, it is hoped that Johannesburg will be a new springboard to implementing action. The Rio Forest Principles continue to act as a foundation, and as a source of inspiration. But now, nearly ten years on, there are a multitude of other commitments that have been made at different levels and by different stakeholders that have built on the Principles enshrined in the Rio document. Together, these all represent critical aspects of global forest governance. It is hoped that the appropriate synergies are forged through the

---

[67] See official World Forestry Congress website, *at* http://www.wfc2003.org/ (the 12th Congress is slated to take place September 21-28, 2003 in Quebec City, Canada. The Congress takes place under the auspices of the FAO, but is hosted by different countries every five years. The last meeting was held in 1997 in Antalya, Turkey).

[68] See official World Parks Congress website, *at* http://wcpa.iucn.org/wpc/wpc.html (the 5th Congress will take place in Durban, South Africa, the theme of which will be "Benefits Beyond Boundaries." The Parks Congress is held under the aegis of IUCN – the World Conservation Union and takes place every ten years).

WSSD and future UNFF sessions and that "on the ground" conservation and sound management decisions are applied and enforced. As such, the focus will need to be not only on substantive issues, but also equally on means of implementation, including financing and technology transfer, capacity-building, and education in the forest sector. The Johannesburg Summit represents one of the best avenues globally to forge agreement on these issues, and it is hoped that the moment is seized to move forward on them.

ARTICLE

COUNTRY EXPERIENCES IN THE IMPLEMENTATION OF THE RIO FOREST PRINCIPLES: A CASE STUDY OF THE EAST AFRICAN COMMUNITY STATES

GODBER W. TUMUSHABE*

I. INTRODUCTION

Over the last two decades, there has been emerging consensus that the lack of proper policy, institutional and legal frameworks at the national level has largely contributed to unprecedented forest degradation in East Africa.[1] In the aftermath of the 1992 United Nations Conference on Environment and Development (UNCED)[2], the Republic of Kenya (Kenya), the Republic of Uganda (Uganda) and the United Republic of Tanzania (Tanzania) started processes to reform their forest management institutions.[3] The three East African Community

---

* Godber W. Tumushabe holds a Masters Degree in Law from Makerere University, Kampala Uganda. He is an independent public policy researcher and policy analyst with wide experience of working with the Governments of Kenya, Tanzania and Uganda. He has also wide experience in environmental laws, polices and institutions of many Eastern and Southern Africa countries as well as an understanding of global trade and environmental agreements and policy processes. He is currently working as a full-time policy analyst and Executive Director of the Advocates Coalition for Development and Environment (ACODE)- a Ugandan based policy think tank.

[1] This is demonstrated by the efforts at the national level to engage in detailed policy, legal and institutional reforms that have characterized the forest sector in the aftermath of the UNCED.

[2] The Conference was held in Rio de Janeiro, Brazil in 1992.

[3] The three countries constitute a regional block called the East Africa Community

(EAC) countries instituted policy frameworks aimed at addressing the underlying causes of forest degradation as well as developing a package of legal measures largely directed at changing resource user behaviors. As the momentum for the 2002 World Summit for Sustainable Development (WSSD)[4] in Johannesburg builds, this paper attempts to reflect on the extent to which the reforms in the three EAC countries have responded to the commitments under the Rio Forest Principles[5] and Agenda 21,[6] two of the treaties negotiated at UNCED. The Rio Forest Principles and the broad UNCED commitments have purportedly provided the political impetus and the programmatic context within which forestry sector reforms in the EAC countries have been undertaken. However, it is argued that considerable divergences exist in both the approaches and the pace of reforms at the national level.[7]

This article is divided into eight sections. Section II analyzes the status and trends in forestry resources in East Africa and the relevance of the forestry sector in national economic development and regional integration. This section emphasizes the applicability of forestry goods and services in addressing rural poverty and proposes that investments targeted at in-

---

governed by the East African Community Treaty, which was concluded and signed at Arusha, Tanzania on November 30, 1999, *available at* http://www.eachq.org/eac-in-brief.htm.

[4] The World Summit for Sustainable Development (WSSD) is intended to bring together all stakeholders including governments, private sector and civil society and work towards forging an agreement and plan of action to achieve global sustainable development as envisaged under Agenda 21.

[5] *Non-Legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests,* Report of the U.N. Conference on Environment and Development (Rio de Janeiro, Brazil), Annex III, U.N. Doc. A/CONF.151/26 (Vol. III) (1992), *available at* http://www.un.org/documents/ga/conf151/aconf15126-3annex3.htm [hereinafter *Forest Principles*]. The Rio Forest Principles as a set of voluntary guidelines, which were adopted at the United Nations Conference on Environment and Development (UNCED), that took place at Rio de Janeiro, Brazil in 1992. *Id.*

[6] Agenda 21 is a programmatic plan of action adopted at the United Nations Conference on Environment and Development (UNCED) held at Rio de Janeiro in 1992. Chapter 11 thereof addresses the actions required of Nation States and the international community to address the problems of deforestation. *Agenda 21*, U.N. Conference on Environment and Development (UNCED)(Rio de Janeiro, Brazil June 14, 1992), Sect. II, Ch. 11, at ¶ 11.1, U.N. Doc. A/CONF.151/26 (1992), *available at* http://www.un.org/esa/sustdev/agenda21text.htm [hereinafter *Agenda 21*].

[7] For example, while Tanzania adopted its National Forestry Policy in 1998, it was not until 2001 that Uganda adopted its policy and a process to develop a national forestry policy has been going on since 1999.

creasing the productivity of the sector could provide the much needed stimuli for national economic development. Section III assesses the UNCED processes that gave birth to the Rio Forest Principles and the relevant forestry provisions in Agenda 21. Section IV analyzes the contributions of the EAC Member States in the UNCED forest agenda while section V reviews the UNCED commitments[8] as they relate to forests. Section VI looks at the implementation of the UNCED forest related commitments at the regional level while section VII analyzes the common features of forestry reforms in the EAC Member States. Section VIII concludes with the proposition that the major problems of implementation has been the failure of the EAC countries to more systematically move towards reforming their legal and institutional framework to respond to the management challenges introduced by the UNCED process.

II. OVERVIEW OF THE FOREST SECTOR IN EAST AFRICA

The EAC is comprised of three countries covering an area of 1.7 million square kilometers.[9] The Community has an estimated population of 80 million[10] people who share a common history, language, culture and infrastructure. The EAC countries also share common resources including bodies of water,[11] national parks[12] and forest ecosystems.[13] All these resources are under tremendous pressures largely arising from increasing population, growing demand for forest products, low in-

---

[8] Chapter 11 of Agenda 21 identifies three major programmatic areas within which action by the international community is required in order to arrest forest degradation: (A) Sustaining the multiple roles and functions of all types of forests, forest lands and woodlands; (B) Enhancing the protection, sustainable management and conservation of all forests, and the greening of degraded areas, through forest rehabilitation, afforestation, reforestation and other rehabilitative means; (C) Promoting efficient utilization and assessment to recover the full valuation of the goods and services provided by forests, forest lands and woodlands. *Agenda 21*, *supra* note 6.

[9] Uganda is 199,550 square kilometers. DORLING KINDERSELY WORLD REFERENCE ATLAS 556 (2nd ed. 1998). Kenya is 566,970 square kilometers. *Id.* at 316. Tanzania is 886,040 square kilometers. *Id.* at 532.

[10] Uganda's population is 21.3 million. *Id.* at 556. Tanzania's population is 29.7 million. *Id.* at 532. Kenya's population is 30 million. *Id.* at 316.

[11] Lake Victoria which is the biggest fresh water lake in the world is shared by the three countries.

[12] For example the Serengeti National Park is shared between Kenya and Tanzania.

[13] For example the Sango Bay-Minziro Forest ecosystem which crosses from Rakai District in Southern Uganda to Bukoba District in Northern Tanzania.

vestments in natural resources management, poorly defined property rights, and macro-economic policies that provide incentives for over-exploitation.

In all three EAC countries, the forestry sector is the major source of energy. For example, at the time of the UNCED in 1992, it was estimated that fuel-wood, charcoal and agricultural residues accounted for 92% of Tanzania's total energy consumption.[14] Table 1 shows the total forested area of Tanzania mainland by type as shown in the report prepared for UNCED.[15]

Table 1: The total forested area in Tanzania mainland by distribution and type[16]

Type of forest	(ha. million)	Proportion to total forest estate
Forests (Excluding mangrove)	1.4	3.2%
Mangrove forests	0.1	0.3%
Woodlands	42.9	96.5%
Total	44.4	100%

In 1989, it was estimated that the forestry sector provided 2-3% of the Gross Domestic Product (GDP) and 10% of Tanzania's registered exports while the sector is estimated to provide 730,000 person-years of employment.[17]

Uganda's forest estate is estimated to have declined from 45% of the total land area at the turn on the century to about 7.7% by the end of the last decade.[18] Existing literature shows

---

[14] UNITED REPUBLIC OF TANZANIA NATIONAL ENVIRONMENT MANAGEMENT COUNCIL, NATIONAL CONSERVATION STRATEGY FOR SUSTAINABLE DEVELOPMENT 7 (1994) [hereinafter TANZANIA NCSSD]. It was also estimated that commercial fuels, in particular electricity and petroleum accounted for only 0.88% and 7.2% respectively of total energy consumption. *Id.*

[15] UNITED REPUBLIC OF TANZANIA, NATIONAL REPORT FOR THE 1992 UNITED NATIONS CONFERENCE ON ENVIRONMENT AND DEVELOPMENT (UNCED) 5 (1991) [hereinafter TANZANIA NATIONAL REPORT 1991]. According to the report, forest resources are considered to comprise of forests, woodlands, grasslands or savanna accounting for 50% of Tanzania's total land area. *Id.*

[16] *Id.*

[17] UNITED REPUBLIC OF TANZANIA MINISTRY OF NATURAL RESOURCES AND TOURISM, NATIONAL FORESTRY POLICY 11 (1998) [hereinafter TANZANIA NATIONAL FORESTRY POLICY].

[18] REPUBLIC OF UGANDA MINISTRY OF WATER, LANDS AND ENVIRONMENT, THE

that this decline was caused by many factors ranging from increasing population, inadequate legal and policy framework, lack of accurate data on forest resources, and encroachment.[19] At the moment, Uganda's forest estate (forests and woodlands) is estimated at 4.9 million hectares (ha.) covering approximately 24% of Uganda's total land area[20] and contributing approximately 90% of the national energy needs. By 1986, Uganda's production of wood-fuel was estimated at 15.6 million cubic meters per annum while consumption was estimated at about 18.3 million cubic meters representing a deficit of 3.3 million cubic meters per annum.[21] Table 2 below shows the distribution of Uganda's forests by type.

Table 2: Approximate areas (in hectares) of forest and woodland under different categories of ownership and management[22]

	Government land		Private Land	Total
	Central and Local Forest Reserves	National Parks and Wildlife Reserves	Private and Customary Land	
Tropical High Forest	306,000	267,000	351,000	924,000
Woodlands	411,000	462,000	3,102,000	3,974,000
Plantations	20,000	2,000	11,000	34,000
Total Forest	737,000	731,000	3,464,000	4,932,000
Other Cover Types	414,000	1,167,000	13,901,000	15,482,000

NATIONAL FOREST PLAN (Draft for Consultation) 4 (2001) [hereinafter UGANDA NATIONAL FOREST PLAN].

[19] NATIONAL ENVIRONMENT MANAGEMENT AUTHORITY, STATE OF THE ENVIRONMENT REPORT FOR UGANDA 1998 71-83 (1999); *see* REPUBLIC OF UGANDA MINISTRY OF WATER, LANDS AND ENVIRONMENT, THE UGANDA FORESTRY POLICY 3 (2001) [hereinafter THE UGANDA FORESTRY POLICY].

[20] UGANDA NATIONAL FOREST PLAN, *supra* note 18, at 3.

[21] World Bank, 1986.

[22] THE UGANDA FORESTRY POLICY, *supra* note 19.

Like Uganda and Tanzania, the forestry sector in Kenya faces a number of daunting problems and challenges linked to rapid population growth and poor governance.[23] The gazette forestland, estimated at 2.8% of the total land area (582,646 sq. km), is decreasing rapidly due to pressure from agriculture and expansion of human settlements. The remaining area of closed canopy forests (approximately 1.2 million ha.) is expected to lose about 240,000 ha. in the next twenty-five years.[24] While the forestry estate is continuing to shrink, the disparity between demand and supply for wood products (timber, pulpwood, poles and fuelwood) is growing. According to the Kenya Forest Master Plan, it is estimated that increases in total wood demand will outstrip wood supply before the end of this decade.[25] Further, it is estimated that by the year 2020, wood demand will stand at 45 million cubic meters while supply will stand at 38 million cubic meters representing a deficit of 7.0 million cubic meters.[26]

Generally, a few striking similarities can be identified as generic to the forestry sector in the EAC countries. First, the major driving factors of forest loss appear to be agriculture and population growth.[27] In fact, with Uganda developing a new strategic framework for poverty eradication premised on agriculture modernization,[28] there are apparent growing indications that forestry lands will be a focus of agriculture invest-

---

[23] Over the years, there has been a growing intricate relationship between forestry policy and politics in Kenya. On many occasions, the Government has given away or attempted to degazzette several forest reserves to distribute to local people or ruling party sympathizers to buy political support. *See* WORLD RESOURCES INSTITUTE, AFRICA'S VALUABLE ASSETS: A READER IN NATURAL RESOURCES MANAGEMENT 301-19 (1998).

[24] THE REPUBLIC OF KENYA, 1999. KENYA FORESTRY RESEARCH INSTITUTE (KEFRI)-STRATEGIC PLAN 1999-2003: DEVELOPMENT AND CHALLENGES OF FORESTRY RESEARCH IN KENYA (1999) (on file with the author).

[25] *Id.*

[26] *Id.*

[27] THE UGANDA FORESTRY POLICY, *supra* note 19, at 3; TANZANIA NATIONAL FORESTRY POLICY, *supra* note 17, at 8; REPUBLIC OF KENYA MINISTRY OF ENVIRONMENT AND NATURAL RESOURCES, KENYA FOREST POLICY 3-5 (1999) [hereinafter KENYA FOREST POLICY].

[28] *See generally* REPUBLIC OF UGANDA MINISTRY OF AGRICULTURE, ANIMAL INDUSTRY AND FISHERIES/MINISTRY OF FINANCE, PLANNING AND ECONOMIC DEVELOPMENT, PLAN FOR MODERNIZATION OF AGRICULTURE: ERADICATING POVERTY IN UGANDA (Government Strategy and Operational Framework) (2000).

ments.[29] Second, the EAC countries are pursuing almost identical macro-economic policies that provide the context for forest sector development (see Table 3).

The major macro-economic objectives include poverty eradication, ensuring macro-economic stability, creating an enabling environment for a strong private sector, and scaling down government involvement in the economy. Third, the forestry sector will for sometime remain the main source of energy for both rural and urban populations. Finally, since large tracts of forests are found on private land,[30] the comprehensive approach adopted under the Rio Forest Principles provides a useful legal context in which policy and legislative interventions can be undertaken to ensure sustainable management of the entire forest estate.

Table 3: Highlights of the national policy framework for forest sector development in East Africa

	Macro-Economic Policy Framework	Environmental Policy Framework	Forestry Policy Objectives
Tanzania	▪ Combating poverty and deprivation in order to improve peoples welfare; ▪ Ensuring macro-economic stability;	▪ To ensure sustainable and equitable use of resources for meeting the basic needs of the present and future generations;	▪ Ensured sustainable supply of forest products and services by maintaining sufficient forest area under effective management;

[29] For example, between 1999-2000, the Government of Uganda proposed to degazette 3,500 ha of forest reserves on Bugala Island for a palm oil development project. This project was abandoned following the interventions by environmental civil society organizations and donors. At the moment, there are attempts by Government to degazette or change the land use of Butamira Forest Reserve for sugar cane growing. *See* Godber Tumushabe et al., *Sustainably Utilizing Our Natural Heritage: Legal Implications of the Proposed Degazettement of Butamira Forest Reserve*, ACODE POL'Y RES. SERIES, No. 4, 2001.

[30] For example, in Uganda, 70% of the entire national forest estate is considered to be located on private land with only less than 30% located in protected areas spread across the country. UGANDA NATIONAL FOREST PLAN, *supra* note 18, at 3.

	Macro-Economic Policy Framework	Environmental Policy Framework	Forestry Policy Objectives
Tanzania Con't.	▪ Maintaining an environmentally sustainable development path; ▪ Creating an enabling environment for a strong private sector; ▪ To reduce government involvement in directly productive activities;	▪ To prevent and control degradation of land, water, vegetation and air ▪ To improve the condition and productivity of degraded areas; ▪ To promote international cooperation on the environment agenda.	▪ Increased employment and foreign exchange earnings through sustainable forest-based industrial development and trade; ▪ Ensured ecosystem stability through conservation of forest biodiversity, water catchments and soil fertility;
Uganda	▪ Creating a framework for rapid economic growth; ▪ Maintaining macro-economic stability; ▪ Decentralization; ▪ Directly increasing the ability of the poor to raise incomes;	▪ Enhance the health and quality of life of the Ugandan people and promote long-term sustainable socio-economic development through sound environmental & natural resource management and use; ▪ Integrate environmental activities in development with full participation of the people;	▪ An integrated forest sector that achieves sustainable increase in the economic, social and environmental benefits from forests and trees by all the people of Uganda, especially the poor and vulnerable.

	Macro-Economic Policy Framework	Environmental Policy Framework	Forestry Policy Objectives
Uganda Con't.	▪ Directly increasing the quality of life of the poor.	▪ Conserve, preserve and restore ecosystems and maintain ecological processes and life systems.	▪ An integrated forest sector that achieves sustainable increase in the economic, social and environmental benefits from forests and trees by all the people of Uganda, especially the poor and vulnerable.
Kenya	▪ Improving governance to create an enabling environment for private sector and public resources, allocated towards infrastructure improvement and security while decisively addressing health and education priorities; ▪ Consolidate stabilization gains and reduce the domestic debt burden;	▪ Facilitating the optimal use of the national land base and water resources in improving the quality of the human environment; ▪ Promoting sustainable use of natural resources to meet the needs of present generations while preserving the ability to meet the needs of future generations;	▪ Increase the forest and tree cover of the country to increase the supply of forest products and services on a sustainable basis; ▪ To conserve and rehabilitate remaining natural habitats and conserve their biodiversity;

	Macro-Economic Policy Framework	Environmental Policy Framework	Forestry Policy Objectives
Kenya Con't.	▪ Improving allocation of resources through acceleration & broadening of the structural reform scope, including improving the regulatory environment affecting agriculture priority areas that have direct implications for poverty eradication; ▪ Enhancing Government's proactive role in facilitating expansion of the private sector. [31]	▪ Treating environmental conservation & economic development as integral aspects of the same process of sustainable development; ▪ Generating income & meeting national goals & international obligations by conserving biodiversity, reversing desertification, mitigating effects of disasters, & maintaining the Earth's ecological balance.[32]	▪ Support the Government policy of poverty alleviation and rural development through income generation, employment and participation by local communities; ▪ Promote international obligations.

III. COMING TO A CONSENSUS: FORESTS AT RIO

At its 38th Session in 1983, the United Nations General Assembly (UNGA) passed a resolution[33] establishing a World Commission on Environment and Development (WCED) to

[31] *See* Letter of Intent by the Government of Kenya to the International Monetary Fund and the attached Memorandum of Economic and Financial Policies of the Government of Kenya, 2000-03, *available at* http://www.imf.org /external/NP/LOI/2000/ken/01/ INDEX.HTM.

[32] REPUBLIC OF KENYA SECRETARIAT/MINISTRY OF ENVIRONMENT AND NATURAL RESOURCES, THE KENYA NATIONAL ENVIRONMENT ACTION PLAN (NEAP) REPORT 1 (1994) [hereinafter KENYA NEAP].

[33] The Commission was among other things requested to propose long-term environmental strategies for achieving sustainable development by the year 2000 and beyond and to help define shared perceptions of long-term environmental issues and the appropriate efforts needed to deal successfully with the problems of protecting and enhancing the environment. *Available at* http://geneva-international.org /GVA/WelcomeKit/Environnement/chap_5.E.html.

formulate an "agenda for change." The WCED,[34] chaired by the former Norwegian Prime Minister Gro Harlem Brundtland, published its report in 1987.[35] In its report, the Commission acknowledged the importance of forests in maintaining and improving the productivity of agricultural lands, yet it observed that "agricultural expansion, a growing world timber trade, woodfuel demand," and growing poverty were leading to severe forest degradation in many countries.[36] Consequently, by the time of the UNCED in 1992, there was already emerging consensus about the need to take actions to halt the degradation of forest resources.

Following on the work of the WCED, the UNCED became, perhaps, the first major international initiative that produced what appeared to be a consensus framework for the management of the world's forests. This consensus was expressed in a number of instruments concluded at the Conference. Chapter 11 of Agenda 21 contained a series of commitments and actions that States would undertake to promote the management of forests globally. Chapter 11 was complemented by a consensus political statement entitled Non-Legally-Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests (often referred to as the "Rio Forest Principles").[37] In particular, the title of the Rio Forest Principles largely reflects the lack of consensus on a more acceptable agreement on forestry issues at the Conference.

A series of agreements embodying legally biding commitments to address a broad range of environmental and development issues were concluded at Rio.[38] From a strictly legal per-

---

[34] Also commonly referred to as the "Brundtland Commission" after the Chairman of the Commission Gro Harlem Brundtland. *Id.*

[35] *See* OUR COMMON FUTURE: WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT (1987).

[36] *Id.* at 126.

[37] Some analysts have correctly argued that the debate on forestry issues at UNCED proved too controversial, and as a result the delegates could not reach an agreement to include the Rio Forest Principles in Agenda 21 proper. See for example Karl Hansen, *Socio-economic Issues in the International Forestry Policy Dialogue*, Nov. 1995, *available at* http://iisd1.iisd.ca/forests/equityf3.htm.

[38] Most prominent of these agreements include: The Convention on Biological Diversity, 1992 (The Final Act of the Convention was adopted at Nairobi in 1992); The United Nations Framework Convention on Climate Change, Rio de Janeiro, 1992. In addition to these two Conventions, UNCED called on the United Nations General Assembly (UNGA) to establish an Inter-Governmental Negotiating Committee to prepare

spective, it is important to draw a distinction between those commitments expressed in legally binding instruments such as the three "sister conventions"[39] and the associated protocols[40] on the one hand, and commitments expressed in the Conference Declarations including Agenda 21 on the other.

Generally, Agenda 21, the Rio Forest Principles and the Rio Declaration[41] itself are a package of soft law instruments not legally binding upon nation states. In particular, the Rio Forest Principles are generally considered a set of aspirational guidelines to direct the conduct of states towards a more sustainable forest management regime. However, the political significance of UNCED itself and the process of continuous review of the implementation process of these instruments appear to have elevated the character of these instruments to give them an increasingly binding quality. The periodic reporting requirement,[42] especially at the post-Rio Summits, tends to exert significant political pressure on Nation-States to implement the commitments under these instruments as if they were binding *ipso facto*. Therefore, it is tenable to argue that these soft law instruments have assumed "special character" within the hierarchy of international legal norms and their influence on national laws and practice is quite instructive.

Indeed, commentators on the global forestry dialogue have often disagreed on the legal quality of the Principles. Some

---

a convention on desertification. In December 1992, the UNGA agreed to the UNCED proposal (See Resolution 47/188) and the Convention was adopted in Paris on June 17, 1994 and opened for signature in October 1994.

[39] United Nations Convention on Biological Diversity, (June 5, 1992), *available at* http://www.biodiv.org/chm/conv/cbd_text_e.htm.

[40] Since 1992, two major protocols have been negotiated. The Cartegena Protocol on Biosafety, to the Convention on Biological Diversity, Montreal, 2000 (also referred to as the Cartagena Protocol) was negotiated and adopted in 2000. *Cartagena Protocol on Biodiversity to the Convention on Biological Diversity* (Feb. 23, 2000), *available at* http://www.biodiv.org/biosafe/Protocol/html/Biosafe-Prot.html. The Kyoto Protocol was negotiated and adopted in 1997 pursuant to article 17 of the United Nations Framework Convention on Climate Change, 1992. Kyoto Protocol to the United Nations Framework Convention on Climate Change, 3d Sess., [1997] U.N. Doc FCCC/CP/1997/L.7/Add.1/1997 *reprinted in* 37 I.L.M. 32 (1998).

[41] The Rio Declaration on Environment and Development, containing 27 principles, represents the main political statement of the UNCED, *available at* http://www.unep.org/unep/rio.htm.

[42] Since 1992, States have been submitting reports on the progress made in implementing their obligations under the various conventions while reports on the implementation of Agenda 21 are prepared for Rio + Conferences such as the upcoming Rio + 10 (WSSD) due in Johannesburg later this year.

have argued that the Principles contain few calls for direct action that would halt deforestation, ensure that trade in forest products be based on environmentally sustainable practices, or commit to the adoption of a comprehensive world forest strategy. However, other observers have hailed the Principles as an important statement of consensus, and a starting point for possible future engagement in forestry negotiations.[43] As demonstrated in the later sections of this article, it is clear that within the three East African countries, the Rio Forest Principles are being implemented as if they were legally binding commitments.

IV. EAC COUNTRIES' PARTICIPATION IN AND CONTRIBUTION TO UNCED

The EAC countries participated fully in the UNCED proceedings. However, with the exception of Tanzania, no record of the positions submitted in preparation for the Conference has been found in the process of preparing this paper. Since the EAC countries have historically made efforts to present common positions at international fora, it may be tenable to argue that the Tanzania position reflects the key environmental and developmental concerns of all the three countries.

In its submission in preparation for UNCED,[44] Tanzania emphasized the need for the Conference to address the issues of underdevelopment and poverty as the underlying causes of environmental problems. It urged the international community to try to strengthen the existing multilateral environmental and development organizations so that they meet the increasing challenges facing developing countries.

Perhaps the most far reaching recommendation by Tanzania, which has often been shared by Uganda and Kenya as well as many other developing countries, was the call on the UNCED to put in place a framework for reforming the international financial, monetary, and trading system.[45] It argued for

---

[43] *See* The National Council for Science and the Environment, International Forest Agreements, *available at* http://www.cnie.org.

[44] TANZANIA NATIONAL REPORT 1991, *supra* note 15.

[45] Tanzania argued for a reformed international trading system oriented towards creating a global rule-based system based on the principles of multilateralism and non-discrimination.

a reformed international financial system that can set up durable arrangements for the transfer of adequate resources from developed to developing countries so as to accelerate development in the South.

Of particular relevance to the management of forests were Tanzania's recommendations on funding, biodiversity, technology transfer and climate change. The Tanzanian government emphasized that "any targets for the stabilization or reduction of the greenhouse gas emissions should not prejudice the growing energy requirements of the developing countries compatible with their national economic development." These concerns continue to be re-echoed in the ongoing dialogue on forestry. For example, in his address to the opening of the 4th Session of the Ad hoc Inter-Governmental Panel on Forests in 1997, Ambassador Daudi N. Mwakawago of Tanzania, representing the Group of 77 and China, re-emphasized the relevance of poverty eradication and technology transfer to the implementation of the Forest Principles.[46]

As already noted, no record was found of the submissions of Kenya and Uganda for the UNCED. On the other hand, the Tanzanian recommendations did not make any specific mention of the issues of forestry other than the various generalizations about biodiversity, technology transfer, and climate change. It is therefore difficult to ascertain with precision the actual contributions of these countries in the overall formulation of what came to be known as the Forest Principles. In fact, even the country reports that have been submitted after UNCED have neither made reference to the controversies that characterized the forestry discussions nor an assessment of what the specific agenda of these countries was as far as forestry issues were concerned.

Despite what contributions the East African countries may have made to the final outcomes of the UNCED, Chapter 11 of Agenda 21 and the Rio Forest Principles contain a package of obligations that the countries needed to fulfill in order to move

---

[46] Statement by Ambassador Daudi N. Mwakawago, Permanent Representative of the Republic of Tanzania, Chairman of the Group of 77 and China, at the Opening of the Ad hoc Inter-Governmental Panel on Forests-Fourth Session, New York, (Feb. 11, 1997), *available at* http://www.g77.org/Speeches/021197b.htm.

towards sustainable management of forests.[47] In particular, the Rio Forest Principles contain declaratory statements that could be seen to guide the implementation of the more precise actions agreed under Chapter 11 of Agenda 21. An understanding of the key actions adopted in Chapter 11 therefore is a pre-requisite to the more general statements of the Rio Forest Principles.

V. STATES' OBLIGATIONS UNDER AGENDA 21'S CHAPTER 11 AND THE RIO FOREST PRINCIPLES

Generally, Chapter 11 contains four major programme areas: Programme Area 1 deals with sustaining the multiple roles and functions of all types of forests. Programme Area 2 focuses on enhancing the protection, sustainable management and conservation of all forests and the greening of degraded areas. It is envisaged that this programme area would be promoted "through forest rehabilitation, afforestation, reforestation and other rehabilitative means." Under Programme Area 3, states undertook to promote efficient utilization and assessment to recover the full value of the goods and services provided by forests, forestlands and woodlands. Finally, Programme Area 4 addresses the issue of capacity building. States undertook to establish and/or strengthen capacities for planning, assessment and systematic observations of forests and related programmes, projects and activities, including commercial trade and processes.

In broad terms, under Chapter 11 of Agenda 21 and the Rio Forest Principles, countries are obligated to undertake a number of actions in order to move towards a more sustainable forestry management regime. Governments undertook to rationalize and strengthen the relevant forestry administrative structures and ensure inter-sectoral coordination.[48] The States committed themselves to prepare and implement national forestry action programmes and/or plans for the management,

---

[47] The commitments under these instruments have been enriched by IPF Proposals for Action and subsequent decisions within the framework of the global forestry dialogue under the auspices of the World Commission on Sustainable Development (WCSD). *Programme of Work of the Intergovernmental Panel on Forests*, U.N. ESCOR Doc. E/CN.17IPF/1995/2, *available at* http://www.un.org/esa/sustdev/aboutiff.htm.

[48] *Agenda 21*, *supra* note 6, at 11.3; *Forest Principles*, *supra* note 5, at 3.

conservation, and sustainable development of forests[49] and recognized the various processes under the Tropical Forestry Action Programme.[50] In the post-UNCED international forestry dialogue, the concept of National Forest Programmes has gained increasing dominance and acceptability as constituting the essential organizational framework for the implementation of the international commitments relating to sustainable forestry management.

The concept of "National Forest Programmes" is not actually mentioned in the Rio Forest Principles and is probably derived from Chapter 11 of Agenda 21.[51] Although neither Agenda 21 nor the Rio Forest Principles contain an elaboration of what constitutes such programmes, the content and elements of National Forest Programmes are based on the Tropical Forests Action Programme guidelines of the FAO and have further been shaped by the discussions under the Intergovernmental Panel on Forests (IFP)/ Intergovernmental Forum on Forests (IFF) processes. The discussions have largely reflected the consensus among the international community that frameworks such as National Forestry Action Programmes (NFAP), Forestry Master Plans, and Forest Sector Reviews provide the basis for achieving sustainable forestry development as envisaged both under the Rio Forest Principles and Agenda 21.

Although no common legal definition has been ascribed to the concept of National Forest Programmes, it is generally agreed that the expression "designates the wide range of approaches to the process of planning, programming and implementation of forest activities in a country to be applied at national and sub-national levels, based on a common set of guid-

---

[49] Principle 6(b) of the Forest Principles declared that "National policies and programmes should take into account the relationship, where it exists, between the conservation, management and sustainable develop of forests and all aspects related to the production, consumption, recycling and/or final disposal of forest products." *Id.*

[50] *Agenda 21*, *supra* note 6, at 11.12.

[51] Paragraph 11:12 provides that one of the objectives of Programme Area B of this Chapter is "to prepare and implement, as appropriate, national forestry action programmes [NFAP] and/or plans for the management, conservation and sustainable development of forests. These programmes and/or plans should be integrated with other land uses. In this context, country-driven national forestry action programmes and/or plans under the Tropical Forestry Action Programme are currently being implemented in more than 80 countries, with the support of the international community". *Id.*

ing principles."[52] Therefore, the implementation of the UNCED forest commitments at the national level ought to be analyzed within this conceptual framework.

VI. REGIONAL EFFORTS TO ADDRESS FORESTRY MANAGEMENT ISSUES

Despite the non-legally binding nature of the Rio Forest Principles and Agenda 21, the three EAC countries have engaged in various processes to implement these principles as if they were binding *ipso facto*. Since 1992, all three countries have been engaged in a continuous process of instituting legal, policy and institutional reforms that reflect the UNCED commitments in general and the Rio Forest Principles in particular. While many of the reform processes do not make reference to Agenda 21 or the Rio Forest Principles,[53] they generally tend to comply with the UNCED commitments in general and the Forest Principles in particular.[54]

At the regional level,[55] efforts are being made to ensure commonality in policy responses and institutional coordination at the ecosystem level.[56] In 1993, the three EAC countries identified key areas in which they would cooperate to further their regional integration processes. Conservation and reafforestation as well as research and training in forestry were considered to be key areas of the co-operation.[57] These initia-

---

[52] National Forest Programmes, *available at* http://www.fao.org/forestry/foda/nfp/nfp-e.stm.

[53] REPUBLIC OF UGANDA MINISTRY OF WATER, LANDS AND ENVIRONMENT, THE FOREST SECTOR UMBRELLA PROGRAMME (FSUP) (1999). The Forest Sector Umbrella Programme makes explicit references to Uganda's active participation in the United Nations Commission on Sustainable Development (CSD), the Inter-Governmental Panel on Forests (IFP) and the underlying principles of developing a FSUP based on the elements and principles developed by the IFP.

[54] It should be noted though that the Tropical Forest Action Plan in Tanzania dates back to the mid-1980s and the UNCED can only be seen to have provided momentum to this planning process.

[55] See The East Africa Co-operation Development Strategy (1997-2000), *available at* http://www.eastafricaweb.com/EAC/strategy.php.

[56] The East Africa Cross-Borders Biodiversity Project, *available at* http://www.acts.or.ke/innovation6%20-%20Reducing%20biodiversity.htm. (being jointly implemented by Kenya, Uganda and Tanzania with funding from the Global Environment Facility (GEF) is one such regional forestry initiative).

[57] Common Text on Identified Areas of Co-operation Between the United Republic of Tanzania, the Republic of Uganda and the Republic of Kenya (Nov. 1993) (on file

tives were consolidated into a Memorandum of Understanding (MoU) on environmental issues among the EAC countries covering a broad range of principles, including forestry resources management,[58] and were further incorporated in the Treaty for the Establishment of the East African Community.[59] Article 114 relating to the management of natural resources, contains elaborate provisions regarding measures to be taken by the EAC to ensure sustainable management of forestry resources within the community.

Although no specific reference has been made to the UNCED process in most of the documents regarding environmental management in the EAC, it is tenable to argue that these provisions reflect the global forestry agenda as accepted by the EAC States. Generally, little has been done to realize the aspirations of the EAC States under the Treaty as well as the MoU. However, these regional instruments provide a policy and legal framework for the enhanced operationalization of the UNCED forest commitments at the national level. The following section of the paper considers the efforts made by the EAC States in implementing the Rio Forest Principles at the national level.

VII. NATIONAL RESPONSES TO THE UNCED FOREST COMMITMENTS

Although the EAC countries are moving towards regional integration in many areas including environmental management,[60] their responses towards implementing global environmental commitments still have to be analyzed within a national context for a number of reasons. First, these countries have distinct policy making structures and the processes of policy and legal reforms take place at different paces. Second, forestry policy reforms have been undertaken as part of donor conditionalities imposed by the World Bank, International Monetary Fund and other multinational lending entities.

---

with the author) [hereinafter Common Text].

[58] Memorandum of Understanding Between the United Republic of Tanzania, the Republic of Kenya and the Republic of Uganda on Environmental Management (Oct. 1998) (unpublished).

[59] The Treaty came into force on July 7, 2000, *available at* http://www.eachq .org/eac-TheTreaty.htm.

[60] Common Text, *supra* note 57.

These conditionalities required a reduction in public sector funding, including funding spent on public agencies responsible for forest management.[61] Third, funding for forestry sector reforms has largely been provided through external support[62] and, consequently, donors tend to dictate the pace and context of the reform processes.[63]

The approaches to implementing the Rio commitments, as far as sustainable forestry management are concerned, have been similar among the EAC countries although they have proceeded at different paces. The overall approaches entail: integrating forestry activities into the overall environment and development activities at the policy, legal and management levels; developing an effective legal and regulatory framework; and re-organizing forestry and other related institutions to ensure institutional coordination and policy coherency.

In the post-Rio era, the EAC countries have focused on four major types of reforms that have implications for forest sector development. These four types of reforms are discussed below.

A. NATIONAL ENVIRONMENTAL ACTION PLANS (NEAPS)

First, these countries engaged in a process to formulate National Environment Action Plans (NEAPs). By 1994, Kenya[64], Tanzania[65] and Uganda[66] had adopted their National Environment Action Plans. The NEAPs contained analysis of the underlying causes of forest degradation and the remedial actions needed to arrest this degradation. Among the key recommendations of the NEAPs prepared by the EAC countries

---

[61] Over the last 10 years, multilateral and bilateral donors have required the scaling down of government in key areas including public administration. Consequently, many countries have been encouraged to restructure their public environmental agencies to give them greater autonomy in their operations.

[62] For example, the National Environment Action Plan (NEAP) Processes were largely driven by the World Bank which provided funding for these processes although this does not explain why it took long to complete the process in Kenya compared to Uganda where the process was completed as early as 1994.

[63] In all the three countries, the Department for International Development of the United Kingdom (DFID-UK), Germany Technical Assistance (GTZ), the Government of Finland and the European Union have been dominant players in the forestry sector.

[64] KENYA NEAP, *supra* note 32.

[65] TANZANIA NCSSD, *supra* note 14.

[66] REPUBLIC OF UGANDA SECRETARIAT/MINISTRY OF ENVIRONMENT AND NATURAL RESOURCES, THE NATIONAL ENVIRONMENT ACTION PLAN FOR UGANDA (NEAP) (1994) [hereinafter UGANDA NEAP].

was the need to develop new policy and legal frameworks for forest sector development at the national level.

The three countries share two key striking similarities with respect to the NEAP processes. First, the World Bank's support to the NEAPs was delivered as part of the conditionalities for development assistance. Second, the NEAPs have largely taken place outside the framework of the national development planning process. A critical analysis of the NEAPs shows that the environment was looked at entirely outside the national macro-economic framework, a factor that may well account for their limited impact on addressing environmental degradation. Nevertheless, the NEAP processes have generally provided the basic framework for policy and legal reforms in the environment sectors of the EAC States.

B. REFORM OF NATIONAL ENVIRONMENTAL POLICIES

The second type of reforms focused on the reformulation of national environmental policies. After 1992, the three EAC countries engaged in a process to put in place environmental policy frameworks as a follow-up to the NEAP/NBSAP processes. In 1994, Uganda adopted its framework environment policy[67] followed by Tanzania[68] and Kenya. Uganda and Kenya have since succeeded these policy frameworks with framework laws.[69]

The overall objective of these reforms has been to create coordination and coherence in the various institutions that deal with environmental management. While these efforts have in some measure achieved that objective, problems of institutional conflicts exist in many areas including overlaps in institutional mandates. However, the most important problem that has not been resolved by these framework reforms is the failure to put

---

[67] REPUBLIC OF UGANDA MINISTRY OF NATURAL RESOURCES, THE NATIONAL ENVIRONMENT MANAGEMENT POLICY (1994).

[68] UNITED REPUBLIC OF TANZANIA VICE PRESIDENT'S OFFICE, NATIONAL ENVIRONMENTAL POLICY (1997).

[69] Uganda enacted a National Environment Statute in 1995 (Statute No. 4 of 1995) while Kenya enacted its Environmental Management and Coordination Act, 1999 (No. 8 of 1999). At the second meeting of the Committee on the Environment of the East Africa Community, it was reported that Tanzania would have its framework legislation ready by December 1999 (Ref. No. EAC/SR/11/99). No record has so far been found to suggest that either the law or the bill is in place.

in place effective mechanisms[70] for integrating environmental concerns in the overall macro-economic and national development framework.

At another level, a series of sector specific policy, legal, and institutional reforms have been ongoing in the forestry sector in the EAC countries. The three EAC countries have engaged in reform processes that are largely aimed at creating dynamic structures for forestry management. In 1996, Kenya[71] adopted its National Forestry Policy followed by Tanzania in 1998[72] and Uganda in 2001.[73]

Through forestry sector reforms, the EAC States have aligned their policy objectives in ways that are compatible with the principles and commitments contained in Chapter 11 of Agenda 21 and the Rio Forest Principles. A number of salient common features stand out in the policies for the three countries.

First, the apparent tendency in all three countries is to increase the role of the private sector in forestry management and development.[74] The policy of the government of the United Republic of Tanzania is to create an enabling environment and regulatory framework for the private sector involvement in forestry through training, research, and transfer of technology. The government undertakes to promote incentives and credit facilities for investments and encourage joint ventures.[75]

---

[70] For example, in all the EAC countries, there have been difficulties in creating appropriate linkages between the ministries of environment and ministries of finance, planning, energy, and agriculture, which deal with formulation of macro-economic policies.

[71] Since 1999, Kenya has been engaged in a process to formulate a new forestry policy and this process is still ongoing. KENYA FOREST POLICY, *supra* note 27.

[72] TANZANIA NATIONAL FORESTRY POLICY *supra* note 17.

[73] UGANDA FORESTRY POLICY, *supra* note 19.

[74] For example, policy statement (7) of the National Forest Policy of Tanzania states that "Private and community forestry activities will be supported through harmonized extension service and financial incentives . . ." TANZANIA NATIONAL FORESTRY POLICY *supra* note 17. As a strategy for implementing the policy statement on the permanent forest estate (PFE) the Uganda Forestry Policy provides that Government shall "support the development of responsible private sector enterprises that can harvest timber and non-timber forest products from natural forests." UGANDA FORESTRY POLICY, *supra* note 19, at 16.

[75] TANZANIA NATIONAL FORESTRY POLICY *supra* note 17, at 28. In 2000, the Tanzania Government took an IDA loan to finance reforms in the forest sector. Part of this loan is to be applied to complete institutional reforms while the other part will be used to privatize forest plantations.

The Uganda Forestry Policy recognizes the important role that the "commercial private sector" can play in the development and management of the forest estate especially in the areas of "production and processing of wood products and in eco-tourism." The government undertakes to promote "profitable and productive forest plantation businesses" and promote a "modern, competitive, efficient and well regulated wood and non-wood processing industry."[76]

Although the 1996 Kenya Forest Development Policy does not contain specific provisions regarding the involvement of the private sector, some inferences point to the recognition that forestry development must be undertaken with the full participation of private business.[77] Actual forest practice on the ground shows that many forest areas including forest plantations are being taken over by individuals. The World Bank's final report on the forest sector performance greatly criticized the government for its inability to move to privatize in a transparent manner.

Despite these policy commitments, there are still significant legal and structural limitations to effective private sector involvement in sustainable forestry management as envisaged under the Rio Forest Principles and the post-UNCED international forestry policy dialogue. Generally, the systems of coordination and administrative monitoring of harvesting and movement of forest products are still very poor and the systems of land and tree tenure are still not clear. This acts as a disincentive to commercial tree farming and there are market disincentives for investments and re-investments in the forestry sector.[78]

Moreover, since 1992, national forest policy reforms have increasingly attempted to integrate forestry issues into the overall macro-economic policy framework, making sure that forestry contributes to the overall national objectives of poverty eradication. The 1996 Kenya Forestry Development Policy, although making no explicit mention of poverty eradication, focuses on providing a policy framework for the development of

---

[76] UGANDA FORESTRY POLICY, *supra* note 19, at 10 and 17.

[77] REPUBLIC OF KENYA MINISTRY OF ENVIRONMENT AND NATURAL RESOURCES, KENYA FOREST DEVELOPMENT POLICY (1996).

[78] UGANDA FORESTRY POLICY, *supra* note 19, at 10.

forestry business.[79] However, as clearly stated in the 1999 Draft Kenya Forestry Policy, one of the broad policy objectives is to "support the Government policy of alleviating poverty and promoting rural development, by income based on forest and tree resources, by providing employment, and by promoting equity and participation by local communities."[80]

On the other hand, the Uganda Forestry Policy provides that "the improvement of livelihoods should be a major goal in all the strategies and actions for the development of the forest sector so as to contribute to poverty eradication."[81] This means that key policy interventions should address some of the constraints to forestry-related investments: information on high value alternative land uses, lack of information about markets and wood prices, and lack of technical skills in forest management. Indeed, some of the strategies stipulated in the policy, such as collaborative management,[82] reflect the spirit and the letter of the Rio Forest Principles.

Similarly, the National Forest Policy of the United Republic of Tanzania recognizes that forestry sector policy and development ought to be undertaken within the broad national macro-economic policy objectives, which *inter alia* include "combating poverty and deprivation in order to improve peoples' welfare."[83]

The emphasis on poverty eradication[84] as the planning framework for forest sector development in the three EAC countries is well reflected in the Poverty Reduction Strategy Papers (PRSPs) for all the three countries.[85] Among other

---

[79] It may be important to note that the non-explicit references to poverty eradication in the 1996 Kenya Forestry Development Policy is explained by the fact that Poverty Reduction Strategy Papers (PRSPs) were only adopted as country policy framework papers about 1998.

[80] At the time of writing this paper, it was confirmed that the 1999 draft Kenya Forestry Policy was not yet adopted by the government. Telephone Interview with Dr. Patricia-Kameri Mbote, Senior Lecturer-Faculty of Law, University of Nairobi.

[81] UGANDA FORESTRY POLICY, *supra* note 19, at 13.

[82] *Id.* at 18. The Policy states that collaborative partnerships with rural communities will be developed for the sustainable management of forests. *Id.*

[83] TANZANIA NATIONAL FORESTRY POLICY *supra* note 17, at 7.

[84] Although the three EAC countries have highlighted poverty eradication as the overarching goal of economic development, there is no established practice to who how this convergence in forestry policy and poverty eradication objectives are being achieved.

[85] REPUBLIC OF KENYA, INTERIM POVERTY REDUCTION STRATEGY PAPER 2000-2003 (2000), *available at* http://www.imf.org/external/NP/prsp/2000/ken/01/INDEX.HTM;

things, the new approach to forestry management and development within the framework of the PRSPs is to focus on a market-led approach emphasizing sustainable forests for production of timber and other non-wood products. Nevertheless, although forestry is mentioned in the PRSPs as a key factor in achieving poverty reduction, they do not contain any instruments (legal, administrative, policy or otherwise) that aim at achieving integration between sustainable forestry management and poverty eradication objectives.

C. SUBSIDIARITY ISSUES

The third common approach among the three EAC countries is the policy commitment to consider issues of "subsidiarity"[86] including assigning and recognizing the increasing role of NGOs in the forestry management regime. While the forest policies for the three EAC countries recognize that local authorities should take on added responsibilities for forest management, they do not clearly articulate what these responsibilities should be. In addition, none of the policies articulate a clear definition of boundaries of responsibilities between central government agencies and local authorities. On the other hand, the roles assigned to civil society organizations (CSOs) lean heavily towards forestry education and raising awareness without recognizing the relevance of these organizations in policy research, analysis, capacity building, monitoring, accountability and proactive policy advocacy.[87]

UNITED REPUBLIC OF TANZANIA, POVERTY REDUCTION STRATEGY PAPER (PRSP) 27 (2000); UNITED REPUBLIC OF TANZANIA, POVERTY REDUCTION STRATEGY PAPER: PROGRESS REPORT 2000/01 (2001), *available at* http://www.imf.org/external/NP/prsp/2000/tza/02/ ; REPUBLIC OF UGANDA MINISTRY OF FINANCE, PLANNING AND ECONOMIC DEVELOPMENT, REVISED VOLUME 1 OF THE POVERTY ERADICATION ACTION PLAN (PEAP): FINAL DRAFT 128 (2000); REPUBLIC OF UGANDA, MINISTRY OF AGRICULTURE, ANIMAL INDUSTRY AND FISHERIES/MINISTRY OF FINANCE, THE PLAN FOR MODERNIZATION OF AGRICULTURE: ERADICATING POVERTY IN UGANDA (2002).

[86] The principle of subsidiarity is the tenet, which holds that nothing should be done by a larger and more complex organization, which can be done as well by a smaller and simpler organization. In other words, any activity which can be performed by a more decentralized entity, should be.

[87] The Tanzania Forestry Policy for example notes that "non-governmental organizations (NGO) in the field of forestry provide a potentially effective channel to reach farmers and communities with extension advice and other incentives." TANZANIA NATIONAL FORESTRY POLICY *supra* note 17, at 28. It makes no mention of the other roles that NGOs can play such as holding Government and private sector accountable

Agenda 21 and the Rio Forest Principles enjoined States to put in place legal frameworks conducive to achieving sustainable forestry management. The policy commitments mentioned above need legislative backing in order to make them normative. A common feature of forest sector reforms in the EAC countries is that legislative and institutional reforms have proceeded at a slow pace. The forest sector in the three EAC countries is still governed by old and archaic pieces of legislation,[88] devoid of the principles of modern forest management.

Since 1992, the EAC countries have made policy commitments to draft new forest laws that are in conformity with their international legal commitments, national development policies, and conservation objectives. In the case of the EAC countries, either pieces of forestry legislation are in draft form,[89] the status of the legislative process is not clear, or the legal drafting process is only on the agenda. Yet, unless these countries progress more systematically completes the enactment of new forestry legislation, they will fall short of meeting their full commitments under the Rio Forest Principles and related decisions on sustainable forestry management.

D. INSTITUTIONAL RESTRUCTURING

The fourth common feature of forestry sector reforms in the three EAC countries in the post-UNCED era has been attempts to restructure forestry management institutions. Historically, forest management in the three EAC countries has been a responsibility of forest departments falling within the mainstream public service. Over the last decade, attempts at reforming these institutions have been characterized by the desire to remove them from the mainstream civil service and to make them more autonomous as service providers. However, these reforms have dragged on due to considerable uncertainty over the nature of the institutions that ought to be put in place. Decisions to reform these institutions to quasi-autonomous

---

as well as monitoring compliance.

[88] The Forest Act, Chapter 246 of the Laws of Uganda was last revised in 1964. The Forests Act of Kenya, Chapter 385.was last revised in 1982.The current legal framework for forestry management in Tanzania is based on the Forest Ordinance of 1957.

[89] REPUBLIC OF KENYA, DRAFT FORESTRY BILL (Unpublished) (1999); REPUBLIC OF UGANDA MINISTRY OF WATER, LANDS AND ENVIRONMENT, THE FORESTRY ACT (DRAFT FOR CONSULTATION) (2001).

government agencies have been politically driven which partially explains the sluggishness of these reforms.

In reviewing common forest sectors among the EAC countries, we can see that the three countries have made significant progress in reforming their forestry sectors to promote sustainable forest management. However, it is important to note that the most progress has been in the areas of generating scientific information through national biomass studies, National Forest Programmes and forest inventories.

VIII. CONCLUSION

Since 1992, much progress has been made by the three EAC countries in moving towards more sustainable forest management regimes at the national level. At the regional levels, efforts are being undertaken to work towards harmonizing national policies that have implications for the forestry sector. The creation of the Inter-Ministerial Committee on the Environment and the implementation of regional projects such as the East African Cross Borders Biodiversity Project are promising regional initiatives. As the 2002 WSSD draws near, the experiences gained from these and other initiatives could provide key lessons for a future global forestry dialogue.

At the national level, the lack of progress on legislative and institutional reforms is still a major impediment to realizing the policy commitments that have been undertaken. It is tenable to argue that in the absence of strong legal frameworks and strong autonomous and dynamic forestry management institutions that can provide appropriate leadership, many of the policy commitments noted above could remain elusive. Consequently, the 2002 WSSD provides an opportunity for renewing commitments to legal and institutional reforms so as to realize the objectives of the UNCED forest commitments.

Second, the level of involvement of donors in the post-UNCED forestry sector reform agenda in East Africa raises questions of national ownership of the reform processes. Different countries have different objectives and reconciling the donor conditionalities with national policy priorities could further stall the processes of legal and institutional reforms in all three countries. While financial and technical assistance is part of the package of commitments contained in Agenda 21 and the Rio Forest Principles, such funding continues to be

provided in the form of conditionalities, which raises questions about the integrity of the entire financial assistance process.

Finally, as the EAC countries head for Johannesburg for the 2002 WSSD, they will be submitting national reports on the progress made so far in implementing Agenda 21. Experience has shown that national reports normally focus on broad implementation issues such as preparation of National Forest Programmes, Forest Sector Review, Forest Management Plans, and policy and legal reforms. It would be useful if the EAC countries shifted their reporting styles and focused more on how the Rio Forest Principles and other relevant UNCED instruments have assisted them in delivering tangible benefits to forest dependent communities as well as achieving national development objectives.

COMMENT

KYOTO'S SO-CALLED "FATAL FLAWS": A POTENTIAL SPRINGBOARD FOR DOMESTIC GREENHOUSE GAS REGULATION

I. INTRODUCTION

On December 10, 1997, over 180 countries, including the United States, established the Kyoto Protocol to address global warming. Despite its considerable involvement negotiating and drafting the Kyoto Protocol under the Clinton Administration, the United States has since, under the George W. Bush Administration, deemed the Protocol "fatally flawed" and has refused to ratify it as written.[1] Nonetheless, the United States has alternative means to reduce and limit domestic greenhouse gas (GHG) emissions. This Comment discusses the United States' capability to initiate a new domestic program to confront climate change in the wake of the current political stance on environmental issues. Additionally, this Comment proposes a program premised on market-based incentives that will serve as a compromise between industry and the environment to ensure that the United States takes affirmative action to reduce and limit domestic GHG emissions.

Section II of this comment discusses the various factors that contribute to the scientific phenomenon of global warming.

---

[1] EPA Global Warming Publications: Bush Administration's Position (June 11, 2001), *available at* http://www.epa.gov/globalwarming/publications/actions/us_position/bush_ccpol_0611 01.pdf at 14 (visited Jan. 2, 2002) [hereinafter Bush Position].

It also addresses the scientific community's divergent positions with respect to the causes of global warming and the extent to which it will result in long-term adverse environmental consequences. Section III discusses the world community's development of the Kyoto Protocol in response to global warming and the United States' opposition to its ratification. Current environmental regulatory schemes and approaches by which the United States might domestically reduce and limit GHGs are also considered. Section IV examines the relative advantages and disadvantages of GHG reduction and limitation through existing environmental regulatory schemes. This section also considers the potential of a market based incentives approach to environmental regulation to effectively reduce and limit GHGs. Finally, Section V proposes a new regulatory program designed to reduce and limit domestic GHG emissions. The proposal's program development examines the various criteria necessary to establish an effective environmental regulatory program premised on market-based incentives.

II. BACKGROUND

A. GLOBAL WARMING: WHAT IS IT?

Over the past century, the Earth's surface temperature has increased roughly 1°F.[2] The warmest ten years of the past century have occurred within the last fifteen years.[3] Unfortunately, scientists estimate that this warming trend is just beginning.[4]

Scientists attribute global warming primarily to the release GHGs from anthropogenic, or human-induced, sources.[5]

---

[2] OFFICE OF AIR & RADIATION, U.S. EPA, Pub. No. 6202J at 1 (2000).

[3] *Id.*

[4] *See, e.g.,* 147 CONG. REC. S2300-02 (daily ed. Mar. 14, 2001) [hereinafter S2300-02] (statement by Sen. Kerry). Sen. Kerry stated "The chair of IPCC, Dr. Robert Watson, put it his way: We see changes in climate, we believe we humans are involved, and we're projecting future climate changes more significant over the next 100 years than the last 100 years. And the IPCC report is only the latest in a body of science that demands action." *Id.*

[5] 147 CONG. REC. S8894-02 (daily ed. Aug. 3 2001) [hereinafter S8894-02] (statement by Sen. Lieberman explaining IPCC report summaries). *See also* NASA Definitions, *available at* http://asd-www.larc.nasa.gov/edu/anthropodef.html (visited November 17, 2001) (explaining that anthropogenic is a word that scientists use to distinguish

Once emitted, GHGs remain trapped in the earth's atmosphere. GHG molecules maintain the earth's habitable temperature by absorbing infrared radiation, thereby insulating the earth from inhospitable temperatures found outside the earth's atmosphere.[6] Without this GHG layer, the earth's surface temperature would be almost 86°F cooler.[7] Such a temperature would not support current life forms. Likewise, if too many GHGs enter the atmosphere, the earth's temperature will continually rise, eventually leading to environmental catastrophes.[8]

As global surface temperatures continue to rise, snow-covered lands are experiencing decreased snowfall and increased ice loss.[9] As a result, the earth's sea level is rising. Over the past century, scientists have charted a rise in sea level of up to eight inches.[10] Research suggests that sea levels could rise as much as 35 feet over the next century.[11] Coastal

---

changes that people have introduced to the environment from processes that are natural). "An example of an anthropogenic source is an aerosol (very fine particles of dust or smoke suspended in the atmosphere). If a scientist described an aerosol that originates from an industrial emission point, it would be considered an anthropogenic aerosol. A non-anthropogenic aerosol would be one originating, say, from a dust storm, a volcanoe or natural burning"). *Id.*

[6] United Nations Framework Convention on Climate Change – Climate Change Information Kit: Climate Change Information Sheet 1, *available at* http://www.unfccc.int/resource/iuckit/fact 01.html (last modified June 21, 2001) [hereinafter Sheet 1].

[7] *Id. See also supra* note 2, at 2.

[8] *See generally* United States Environmental Protection Agency – Global Warming: Science FAQ – Fundamentals, *available at* http://www.epa.gov/globalwarming/faq/fundamentals.html (last modified May 14, 2001) [hereinafter FAQ] (explaining that some areas will receive more rain, while other areas will be drier. At the same time, extreme events like floods and droughts are likely to become more frequent. Warming will cause glaciers to melt and oceans to expand). *See also* 147 CONG. REC. S3936-01 (2001) [hereinafter S3936-01] (statement by Sen. Lieberman summarizing IPCC's Third Report on global warming). Sen. Lieberman stated that "According to these scientific experts, unless we find ways to stop global warming, . . . a large rapid rise in temperature will profoundly affect the Earth's landscape in very real and consequential terms . . . Precipitation would become more erratic, leading to droughts that would make hunger an even more serious global problem than it is today. Diseases such as malaria and dengue fever would spread at an accelerated pace." *Id.*

[9] United Nations Framework Convention on Climate Change – Climate Change Information Kit: Climate Change Information Sheet 6, *available at* http://www.unfccc.int/resource/iuckit/fact 06.html (last modified June 21, 2001) [hereinafter Sheet 6].

[10] *Id. See also* United States Environmental Protection Agency – Global Warming: Climate Change, *available at* http://www.epa.gov/globalwarming/climate/index.html#Air (last modified April 6, 2001).

[11] *S8894-02, supra* note 5 (statement by Sen. Lieberman explaining that such a rise in sea level could submerge millions of homes and coastal property under our present-

cities would suffer immeasurable structural and economic losses from such a rise in sea level.

Ice loss and global warming are interrelated.[12] Under normal circumstances, ice deflects approximately 80 percent of solar energy from the earth, whereas water absorbs solar energy.[13] As surface temperatures rise, due in part to global warming, ice melts at a more rapid pace. With less ice to deflect solar energy, the rate at which global warming occurs also increases. Equally, as the ice available to deflect the solar energy decreases, the waters in turn absorb more heat. Scientists at the National Oceanographic and Atmospheric Administration (NOAA) confirm that the planet's waters are taking the brunt of the adverse affects of global warming.[14] Moreover, while the oceans absorb heat, thereby keeping land temperatures cooler, the absorption only delays the adverse impact of global warming on land. Due to the absorption of heat by bodies of water, scientists project that only 50 percent of the anthropogenic effects from GHG emissions have been accounted for through increased land temperatures.[15]

Because the oceans are disproportionately absorbing the heat produced by increasing GHG emissions, the oceans are suffering dearly as a result. According to scientific evidence, increased water temperatures have already led to the destruction of nearly twenty-five percent of the planet's coral reefs.[16] Further, scientists project that within the next twenty years the remaining coral reefs could be dead.[17]

Scientists estimate that the increasing GHG concentrations in the atmosphere could raise global temperatures by as much as 5°F over the next 50 years.[18] Scientists also predict that by the close of the next century, global temperatures could

---

day oceans).

[12] *S2300-02*, *supra* note 4 (statement by Sen. Kerry referencing a Dec. 1999 article).

[13] *Id.*

[14] *Id.* (statement by Sen. Kerry summarizing a March 2000 NOAA release).

[15] *Id.*

[16] *Id.* (statement by Sen. Kerry explaining the research results distributed at the International Coral Reef Symposium from Oct. 2000).

[17] *Id.*

[18] United Nations Framework Convention on Climate Change – Climate Change Information Kit: Climate Change Information Sheet 5, *available at* http://www.unfccc.int/resource/iuckit/fact 05.html (last modified June 21, 2001) [hereinafter Sheet 5].

increase by as much as 10°F.[19] If temperatures increase as predicted, more evaporation and precipitation will inevitably result. The predicted consequences in the United States alone include frequent, intense rainstorms; heat waves and droughts; and rises in coastal sea levels by as much as three feet.[20]

Some GHGs occur naturally while humans create others through chemical processes. Naturally occurring GHGs include water vapor, carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and ozone (O_3).[21] While natural GHGs originate from earth processes, they are also induced by human activities. Human induced CO_2 results from burning solid waste, fossil fuel, and wood. Human induced CH_4 results from the distribution of fossil fuel, the landfill processing of municipal solid waste, and livestock husbandry. Human induced N_2O results from solid waste and fossil fuel combustion and agricultural activities.

Four GHGs are the sole product of anthropogenic chemical processes: halogenated fluorocarbons (HCFCs), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6).[22] These manmade GHGs are a result of various industrial processes, final products, by-products, and waste products.[23] Whether the GHG source occurs naturally or is anthropogenic in nature, all GHGs contribute to the planet's rising surface temperature. Unlike naturally occurring GHGs, however, anthropogenic GHGs can be controlled, reduced, and limited by human actions.

B. GLOBAL WARMING: IS IT REALLY A PROBLEM?

While scientists generally agree that global warming is occurring, some hotly debate the causes of global warming, as well as its potential impacts on the planet. Specifically, United States scientists affiliated with industrial and governmental

---

[19] *S8894-02*, *supra* note 5 (statement by Sen. Liebermann explaining the results of the IPCC's Third Assessment Report on Global Warming). *Sheet 5*, *supra* note 18.

[20] FAQ, *supra* note 8.

[21] *See supra* note 2.

[22] *Id.*

[23] United States Environmental Protection Agency – Global Warming: Emissions – What are Greenhouse Gases, *available at* http://www.epa.gov/globalwarming/emissions/index.html (last modified May 14, 2001).

interests opposing more stringent environmental regulations have spurred this debate.[24] As a result, well-known and highly regarded scientists throughout the world continue to provide differing opinions based on their scientific findings.[25] Yet, it is clear that the majority of scientists globally acknowledge that global warming is problematic, that it is worsening due to anthropogenic impacts, and that it is a condition that must be controlled to limit adverse environmental impacts.[26]

1. Scientific Support

The overwhelming majority of the scientific community believes that the research on global warming proves the global environment will suffer adversely in the long term. Such broad scientific and public awareness of the global warming issue is primarily a result of the United Nations' Framework Convention on Climate Change (FCCC) and the creation of the Intergovernmental Panel on Climate Change (IPCC).[27]

---

[24] *See generally, e.g.,* Sharon Beder, *Climatic Confusion and Corporate Collusion: Hijacking the Greenhouse Debate, available at* http://www.uow.edu.au/arts/sts/sbeder/ecologist2.html (visited Mar. 16, 2002) (discussing the corporate influence over American scientists in relationship to their position on global warming). The article was published in the March/April 1999 issue of *The Ecologist*.

[25] *See* Mike Ferullo, *Climate Change: Senate Panel Considers Measure to Create National Research Strategy*, 32 ER 1404 (2001) (Dr. Karl believes global warming is not a problem). *See also* 147 CONG. REC. S2659-02 (2001) [hereinafter S2659-02] (statement by Mr. Peterson quoting a passage from Professor Morner, president of the International Commission and sea level researcher). *But see* 147 CONG. REC. S6000-02 (2001) [hereinafter S6000-02] (statement by Sen. Stevens). Dan Goldin, the Head of the National Aeronautic and Space Administration; Scott Gudes, the acting head of the National Oceanic and Atmospheric Administration; Dr. Rita Colwell, the National Science Foundation Director; Charles Groat, Geological Survey Director; and experts from the International Arctic Research Center and the University of Alaska's Geophysical Institute noted that recent climate change activity likely stems from a number of factors, including natural variances and human activity. *Id. Compare with supra* note 12 (statement by Sen. Kerry). Dr. Robert Watson, chair of IPCC, believes humans are involved in global warming and projects that projects future climate changes will be more significant over the next 100 years than the last 100 years. *Id.*

[26] *See generally* Intergovernmental Panel on Climate Change – Third Report: Technical Summary, *available at* http://www.ipcc.ch/pub/reports.htm#sprep (visited Mar. 16, 2002).

[27] United Nations Framework Convention on Climate Change – Guide to the Climate Change Negotiation Process: The Climate Change Convention, *available at* http://www.unfccc.int/resource/ process/components/response/respconv.html (last modified June 21, 2001) [hereinafter Negotiation Process]. The FCCC was adopted in 1992 at the Rio Earth Summit to stabilize greenhouse gas concentrations in the atmosphere

The IPCC was established in 1988 and is composed of over 2000 scientists from over 100 countries.[28] The IPCC has released a number of reports citing strong evidence that the major source of global warming over the last 50 years is anthropogenic in nature.[29] The IPCC's third report on global warming, issued early in 2001 and authored by 700 expert scientists, concluded that unless the international community limits and reduces GHG emissions, the earth's average temperature will rise anywhere from 2°F to 10°F over the next century.[30] Additionally, the IPCC projects that the climate changes over the next 100 years will be more significant than those of the past 100 years.[31]

In an attempt to refute the IPCC's third report, President George W. Bush requested and received a second opinion from the National Academy of Sciences (NAS).[32] The NAS, however, confirmed the IPCC's findings, stating:

> The IPCC's conclusion that most of the observed warming of the last 50 years is likely to have been due to the increase in greenhouse gas concentrations accurately reflects the current thinking of the scientific community on this issue . . . Despite the uncertainties, there is general agreement that the ob-

---

at a level that would prevent dangerous anthropogenic interference with the climate system. *Id.*

[28] *Id.* The IPCC was established in 1988 by the World Meteorological Organization and the UN Environment Program. *Id.* It conducts rigorous surveys of the worldwide technical and scientific literature and publishes assessment reports that are widely recognized as the most credible existing sources of information on climate change. *Id.* The IPCC also works on methodologies and responds to specific requests from the Convention's subsidiary bodies. *Id.*

[29] S8894-02, *supra* note 5 (statement by Sen. McCain referencing an IPCC report).

[30] S3936-01, *supra* note 8 (statement by Sen. Liebermann explaining that according to the UN's IPCC Third Report on global warming authored by 700 scientists stated that the earth's temperature can be expected to rise up to 10.4 degrees Fahrenheit in the next 100 years). *See also* S8894-02, *supra* note 5 (statement by Sen. Lieberman).

[31] S2300-02, *supra* note 4 (statement by Sen. Kerry paraphrasing Dr. Robert Watson, Chair of the IPCC).

[32] S8894-02, *supra* note 5 (statement by Sen. Lieberman). *See also* National Academy of Science, *Climate Change Science: An Analysis of Some Key Questions (2001), available at* http://books.nap.edu/books/0309075742/html (visited Mar. 9, 2002) (referring to Appendix A – letter from the White House) [hereinafter *Climate Change Science*].

> served warming is real and particularly strong within the past twenty years. [33]

The most recent study conducted by NAS's National Research Council stated that global warming is "undoubtedly real" and that over the past twenty years surface temperatures have risen at a rate substantially greater than the past 100-year average.[34] The NAS further advised the Bush Administration that current and future national policy decisions would influence the extent of damage suffered by human populations and ecosystems as the century progresses.[35]

Around the same time that the FCCC authorized the creation of the IPCC, more than 2,000 United States scientists, including Nobel Laureates, signed the Scientists' Statement on Global Disruption.[36] This statement collectively acknowledges that GHG emissions will result in further global climate change, the adverse impacts of which will include ecological, economic, and social disruption.[37] Furthermore, the Amsterdam Declaration, another statement signed by a group of scientists regarding GHG emissions and global warming, was drafted in response to the growing concern over anthropogenic effects on the environment and ultimately on the human population.[38]

In addition to collective statements by large groups of recognized scientists acknowledging global warming as real and problematic, individual scientists have also come forward to

---

[33] S8894-02, *supra* note 5 (statement by Sen. Lieberman). *See also Climate Change Science*, *supra* note 32.

[34] S2300-02, *supra* note 4 (statement by Sen. Kerry). *See also Climate Change Science*, *supra* note 32.

[35] 147 CONG. REC. S6078-01(daily ed. June 12, 2001) [hereinafter S6078-01] (statement by Sen. Kerry reading a crucial observation by the NAS).

[36] 143 CONG. REC. S10920-01 (daily ed. Oct. 22, 1997) [hereinafter S10920-01] (statement by Sen. Wellstone).

[37] *Id.*

[38] *See* The Amsterdam Declaration, *available at* http://www.sciconf.igbp.kva.se/fr.html (last modified Oct. 26, 2001). The declaration states "the scientific communities of four international global change research programs - the International Geosphere-Biosphere Program (IGBP), the International Human Dimensions Program on Global Environmental Change (IHDP), the World Climate Research Program (WCRP) and the International Biodiversity Program DIVERSITAS - recognize that, in addition to the threat of significant climate change, there is growing concern over the ever-increasing human modification of other aspects of the global environment and the consequent implications for human well-being." *Id.*

publicly comment on global warming. At a recent Senate hearing on the impact of global climate change in the arctic environment, a number of national scientific leaders served as witnesses.[39] The majority of the witnesses attributed the recent climate change to a number of factors, but the two key factors cited by the witnesses were GHG emissions from anthropogenic sources and natural climate system variations.[40] Dr. Thomas Karl, climatology director of NOAA, testified before the Senate regarding the scientific ability to distinguish between anthropogenic GHGs and naturally occurring GHGs.[41] According to Dr. Karl, CO_2 emissions have increased by twenty-five to thirty percent since the beginning of the industrial revolution and he attributes the increase almost entirely to human activity.[42]

Scientists are also beginning to release results of their own studies on climate change further establishing the validity of global warming.[43] For instance, scientists with the National Center for Scientific Research in Grenoble, France, retrieved a two-mile long ice core from the Antarctic Ice Sheet that showed the levels of GHGs are higher than they have been for the past 420,000 years.[44] Scientists at the University of Massachusetts studied annual growth rings in trees, as well as chemical evidence contained in marine fossils, corals, and ancient ice, to track the Earth's surface temperature over the past 600 years.

---

[39] S6000-02, *supra* note 25 (statement by Sen. Stevens). Scientists who served as witnesses for the hearing included Dan Goldin, the Head of the National Aeronautic and Space Administration; Scott Gudes, the acting head of the National Oceanic and Atmospheric Administration; Dr. Rita Colwell, National Science Foundation Director; Charles Groat, U.S. Geological Survey Director; and experts from the International Arctic Research Center and the University of Alaska's Geophysical Institute. *Id.* Many of the Witnesses noted that recent climate change activity likely stems from a number of factors, including natural variances and human activity. *Id.*

[40] *Id.* (statement by Sen. Stevens speaking of an Appropriations Committee Field Hearing in Fairbanks, Alaska on the impact of global climate change in the Arctic).

[41] *See generally* Mike Ferullo, *Climate Change: Senate Panel Considers Measure to Create National Research Strategy*, 32 ER 1404 (2001).

[42] *Id.*

[43] *See* Environmental Law Reporter, *Climate Change*, 31 ENVTL. L. REP. NO. 21. "A report prepared by Tom Wrigley, of the National Center for Atmospheric Research, and Sarah Raper, of the University of East Anglia in the U.K., appearing in *Science*, concludes that average global temperatures will rise between four and seven degrees Fahrenheit during this century, five times the elevation noticed during the last century." *Id.*

[44] *S2300-02*, *supra* note 4 (statement by Sen. Kerry referencing a June 1999 article).

Their research indicated that the Twentieth Century has been the warmest century of the past six centuries. Specifically, three years during the 1990s proved to be the warmest of the 600 years studied.[45] From the results of these studies, scientists have concluded that global warming appears to be closely tied to anthropogenic GHG emissions rather than naturally-occurring GHGs.[46]

Scientists from the University of Maryland and the National Aeronautic and Space Administration's Goddard Space Flight Center each ran models on ice sheets in the Arctic to assess their rate of melting. Currently, these ice sheets are melting at a rate of 14,000 square miles per year.[47] The results from both models found less than a two percent chance that the melting is a result of normal climatic variations. Additionally, the models indicated less than a tenth of a percent chance that melting over the last 46 years was the result of normal variations.[48]

2. Scientific Opposition

Despite the widely held belief by most in the scientific community that GHG emissions induce global warming and cause adverse environmental effects, some reputable scientists take the position that reliable scientific data fails to suggest that GHG emissions facilitate global warming.[49] Not surprisingly, many of these same scientists have connections to industry and governmental interests opposed to more stringent environmental regulation.[50]

Dr. Patrick Michaels, climatologist and professor of environmental science at the University of Virginia, believes most of this century's global warming occurred in the first half of the century before there was a significant concentration of anthro-

---

[45] *Id.* (statement by Sen. Kerry summarizing an Apr. 1998 article where 1990, 1995 and 1997 were found to be the warmest years in the last 600).

[46] *Id.* (statement by Sen. Kerry summarizing an Apr. 1998 article).

[47] *Id.* (statement by Sen. Kerry summarizing a Dec. 1999 article).

[48] *Id.* (statement by Sen. Kerry summarizing a Dec. 1999 article).

[49] S2659-02, *supra* note 25 (statement by Rep. Peterson explaining that Dr. Sally Baliunas of Harvard, Smithsonian Center for Astrophysics, for example, agrees that global warming science is in many cases exaggerated, flawed and unsettled).

[50] *See, e.g., supra* note 24 and accompanying text.

pogenic GHG emissions.[51] In keeping with Dr. Michaels, some scientists estimate that nearly half of the climate warming trends and changes that have occurred since 1850 are the result of natural variances such as the sun.[52] Studies of the climate over the past 120 years by Harvard-Smithsonian Center scientists indicate that the sun is responsible for up to 71 percent of the changes in earth's temperature.[53]

Moreover, some scientists even believe the GHG CO_2 is not worth monitoring, reducing or limiting. Dr. March, a researcher at the Argonne National Laboratory, stated that

> Carbon dioxide is a minor greenhouse gas that contributes only about three percent of the greenhouse effect, and man-made sources represent some three percent to four percent of carbon dioxide emissions, the rest being from natural sources. [I]f all the carbon dioxide in the atmosphere were to vanish magically, it would lead to a one degree centigrade decrease in global temperatures.[54]

Some scientists think that reliable scientific data fails to suggest that global warming will result in adverse environmental effects. For instance, Dr. Richard Lindzen, Professor of Meteorology at the Massachusetts Institute of Technology testified before the U.S. Senate Environment and Public Works Committee that research has failed to establish that global warming is a significant problem.[55] Dr. Michaels testified that conditions in the real world simply have not matched changes projected by some global warming computer models.[56] Even

---

[51] *See generally* 143 CONG. REC. S10308-01 (daily ed. Oct. 3, 1997) [hereinafter S10308-01] (statement by Sen. Hagel). *See also supra* note 24. Dr. Michaels edits the *World Climate Report*, which receives funding from Western Fuels Association (coal interest companies). *Id.*

[52] *Id.* (statement by Sen. Hagel). One scientist, Judith Lean, stated "We figure that half the climate change from 1850 to now can be accounted for by the Sun." *Id.* Ms. Lean works for the Naval Research Laboratory in Washington. *Id.*

[53] *Id.*

[54] *See generally* 146 CONG. REC. S5291-01 (daily ed. June 16, 2000) [hereinafter S5291-01] (statement by Sen. Hagel). Dr. March works for Argonne National Laboratory, a Department of Energy Laboratory operated by the University of Chicago. Argonne National Laboratory Home Page, *at* http://www.anl.gov (visited Mar. 16, 2002).

[55] S10308-01, *supra* note 51 (statement by Sen. Hagel). *See also supra* note 24. Dr. Lindzen is reported to have received $2,500 a day for his services as an in independent scientist-consultant for the fossil fuel industry. *Id.*

[56] *Id.*

the Environmental Protection Agency ("EPA") challenged a recent report on climate change impacts on the United States.[57] Critical of the attempts by scientists to provide an accurate prediction of climate change in the United States over the coming 100 years, the EPA contends that:

> Virtually all published estimates of how climate could change in the United States are the result of computer models . . . These complicated models . . . are still not accurate enough to provide reliable forecasts on how the climate may change; and the several models often yield contradictory results . . . Scientists are unable to say whether particular regions will receive more or less rainfall; and for many regions they are unable to even state whether a wetter or drier climate is more likely.[58]

In the eyes of some reputable, but industrially and politically affiliated American scientists, the debate as to the causes and impacts of global warming is far from settled. The publication of new studies and opinions supporting both positions continue. Despite the divergent opinions concerning global warming, much of the international community has chosen to take a proactive approach. Convinced by the overwhelming scientific support suggesting that global warming will inevitably lead to globally adverse environmental impacts, the international community chose to initiate a global solution to a global problem. The global solution was the creation of the Kyoto Protocol to reduce and limit global GHG emissions.

III. DISCUSSION

A. INTERNATIONAL RESPONSE TO GLOBAL WARMING: KYOTO PROTOCOL

On December 10, 1997, over 180 parties to the United Nations FCCC met in Kyoto, Japan for the third Conference of the Parties (COP-3).[59] During COP-3, the parties established the

---

[57] S5291-01, *supra* note 54 (statement by Sen. Hagel).

[58] *Id.* The Whitman Administration made this comment. *Id.* President George W. Bush appointed Christine Whitman Administrator of the EPA. *See* U.S. Environmental Protection Agency: Office of the Administrator, *available at* http://www.epa.gov/adminweb/about.htm (last updated Apr. 3, 2002).

[59] United Nations Framework Convention on Climate Change: Guide to Climate

international amendment to the FCCC known as the Kyoto Protocol.[60] As of June 4, 2002, 84 parties have signed the Kyoto Protocol. [61] Forty-two parties have ratified the Kyoto Protocol while an additional 32 parties have either acceded to, approved or accepted the Kyoto Protocol.[62]

The Kyoto Protocol, a continually evolving piece of international law, establishes and refines international guidelines for the reduction and limitation of GHG emissions. The primary focus of the Kyoto Protocol is stabilization of atmospheric GHG concentrations at a level that will prevent dangerous anthropogenic interference with the global climate.[63] The GHGs regulated under the Kyoto Protocol originate from industrial sources, such as fuel combustion, energy, transportation, manufacturing, construction, mining, chemical, agriculture, and waste management. The regulated GHGs include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6).

The Kyoto Protocol provides four primary mechanisms to address GHG emission reduction and limitation. Currently, the mechanisms focus on Annex 1 parties, specifically those industrialized countries that have historically contributed to

---

Change Negotiation Process: IPCC, *available at* http://www.unfccc.int/resource/process /components/institution /ipcc.html (last modified Nov. 08, 2001). The FCCC text was adopted at the UN Headquarters in NY in May of 1992. *Id.* The FCCC was initiated in March 1994. *Id. See also* United Nations Framework Convention on Climate Change: Glossary, *available at* http://www.unfccc.de/siteinfo /glossary.html (last modified June 21, 2001) [hereinafter Glossary]. The COP is the supreme body of the Convention. It currently meets once a year to review the Convention's progress. *Id.* The word "conference" connotes an "association." *Id.*

[60] *Id.* The glossary explains that a protocol is linked to an existing convention, but it is a separate and additional agreement that must be signed and ratified by the Parties to the convention. *Id.*

[61] Kyoto Protocol to the United Nations Framework Convention on Climate Change, 3d Sess., [1997] U.N. Doc FCCC/CP/1997/L.7/Add.1/1997 *reprinted in* 37 I.L.M. 32 (1998) [hereinafter Kyoto]. *See also* Glossary, *supra* note 59 (explaining that parties to the Kyoto Protocol are not limited strictly to countries). When a regional economic integration organization becomes a party without the states of the organization being parties, the organization is still bound to the obligations of the protocol. *Id.* Where the states of the organization are also parties to the Protocol, then the states and the organization will decide the responsibilities of each to meet the obligations of the Protocol. *Id. See also* Section VII: Appendix.

[62] *Id.*

[63] Kyoto, *supra* note 61.

GHG emissions.[64] Annex 1 parties also include those countries with economies in transit, whereas non-Annex 1 parties are comprised primarily of developing countries.

While the four mechanisms suggest GHG reduction and limitation methods for non-Annex 1 parties, enumerated reduction commitments have not been established for non-Annex 1 parties. Annex 1 parties, however, must comply with enumerated reduction commitments under the Kyoto Protocol.[65] Annex 1 parties are responsible for ensuring their respective aggregate anthropogenic CO_2 equivalent GHG emissions do not exceed a calculated limit.[66] GHG emissions must be reduced, overall, by five percent below 1990 levels between the years of 2008 and 2012.[67] The calculated limitations of the GHGs were determined by taking into account the individual and aggregate Annex 1 party GHG emissions of 1990.[68]

Annex 1 parties may utilize the four mechanisms to achieve compliance with Kyoto's enumerated requirements. First, joint fulfillment allows an Annex 1 party to offset its enumerated GHG emissions reduction and limitation obligations by working with a non-Annex 1 party.[69] Second, emission reduction units (ERUs) allow parties to transfer and acquire emission reduction units from each other.[70] Parties who transfer ERUs lose their ability to emit GHGs for the quantity of units transferred. Parties acquiring ERUs may emit GHGs up

---

[64] Glossary, *supra* note 59. Annex 1 parties include industrialized countries who have historically contributed to global climate change as well as countries with "economies in transition" (known as EITs). *Id.* Annex I parties consist of the 24 original Organization for Economic Cooperation (OECD) members, the European Union, and 14 countries with economies in transition. *Id.* The OECD consists of Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Republic of Korea, Japan, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, Spain, Sweden, Switzerland, Turkey, the UK, and the US. *Id.*

[65] Kyoto, *supra* note 61.

[66] *Id.*

[67] *Id.*

[68] *Id.*

[69] *Id.*

[70] *Id.* Achieving the required emissions limitations and reduction commitments included ensuring that the calculated emission limits are not exceeded, that the emissions are reduced to a level 5 percent below that of the base year between the years of 2008 and 2012 and that post 2012 emission limitations and reductions are met. *Id.*

to the quantity of units they have purchased from the transferring party.

The third mechanism, separately identified yet related to ERUs, is emission trading.[71] If a party wishes to use emission trading to achieve its enumerated reduction commitment, the trading must be in addition to domestic efforts already underway to achieve compliance with enumerated commitments.[72] The clean development mechanism (CDM) is the fourth mechanism by which non-Annex 1 and Annex 1 parties can achieve the quantified emission limitations and reductions.[73] Under the CDM, non-Annex 1 parties benefit from approved ERU programs by reducing their own GHG emissions before mandatory reductions have been announced.[74] In addition, the CDM helps non-Annex 1 parties achieve sustainable development while assisting with the FCCC's ultimate goal: reducing GHGs.[75] An Annex 1 party that creates CDM programs resulting in actual reductions may use those reductions to meet its quantified emission reduction and limitation commitments under Article III of the Protocol.[76]

In addition to the aforementioned mechanisms to achieve the quantified emission reductions and limitations, Annex 1 parties may also rely on sinks.[77] A sink is place where carbon accumulates without increasing the levels of existing CO_2 in the atmosphere.[78] For Annex 1 parties to meet their reduction

---

[71] *Id.* Article XVII addresses the principles, modes, rules and guidelines for emission trading. The aspect of emission trading that is of concern is reporting and accountability. *Id.* According to Article XVII, parties at a COP should define the emission trading reporting and accountability principles, modes, rules and guidelines. *Id.*

[72] *Id.*

[73] *Id.* The clean development mechanism can also be used to arrange funding for certified emission reduction unit project activities. *Id.* Part of the funding for various projects will be used for administrative expenses. *Id.*

[74] *Id.*

[75] *Id.* In order for the emission reductions to be used towards reaching compliance with the quantified emission reduction and limitation commitments, the reductions must occur no earlier than January 1, 2000. *Id.* The reductions accrued will go towards compliance during the 2008 through 2012 compliance commitment period. *Id.*

[76] *Id.* Certification is based on the voluntary participation of the parties, the real, measurable, long-term benefits from the reduction and the reductions are a result of more than what would occur if the reduction program did not exist. *Id.*

[77] *Id.* While the overall reduction of GHG emissions is not expected until at least 2008, Annex 1 parties are expected to make demonstrable progress towards achieving the overall reduction goal by the year 2005. *Id.*

[78] *See* Exploring the Environment: Global Climate Change – Glossary, *available at*

commitments, they may use sinks resulting from post-1990 human induced land use change, afforestation, deforestation, and reforestation activities.[79]

The Kyoto Protocol will enter into force after two separate, but connected, conditions occur. First, at least 55 parties to the FCCC must sign and ratify or accede to, accept or approve of the Kyoto Protocol.[80] Those 55 or more parties must account for no less than 55 percent of the total reported 1990 carbon dioxide emissions.[81] Once both conditions have been satisfied, the Kyoto Protocol will enter into force 90 days later.[82] After the Kyoto Protocol enters into force, any additional parties interested in joining must do so by becoming a party and acceding to, accepting or approving of the Kyoto Protocol. Upon the party's accession, acceptance or approval, the Kyoto Protocol will not go into effect for that party for 90 days.[83]

For nearly five years, the United States was an active participant in the development of the Kyoto Protocol. The Clinton Administration was determined to establish the United States as a conscientious player in global environmental policy.[84] Although the United States was an original signatory to the Kyoto Protocol under the Clinton administration, Congress has taken considerable steps in the last four years to ensure that the United States does not ratify the Kyoto Protocol as written.[85]

---

http://www.cotf.edu/ete/modules/climate/GCglossary.html (last modified Feb. 13, 2001).

[79] Kyoto, *supra* note 61.

[80] *Id.*

[81] *Id.*

[82] *Id.*

[83] *Id.*

[84] United States Department of State – International Information Programs, *Fact Sheet: President Clinton and Vice President Gore Environmental Leadership on the 30th Anniversary of Earth Day*, *available at* http://usinfo.stategov/topical/global/environ /latest00042204.htm (visited Mar. 16, 2002).

[85] *See* S. Res. 98, 105th Cong. (1997) (enacted) [hereinafter S. Res. 98]. *See also* Pamela Najor, *Climate Change: GOP Lawmaker Sees Need to Revamp Kyoto Pact to Remove Reduction Mandates*, 236 DEN a-5, 2000 [hereinafter *Reduction Mandates*].

B. UNITED STATES POSITION ON THE KYOTO PROTOCOL: "FATALLY FLAWED"

Criticism of the Kyoto Protocol stems from two primary concerns: (1) the lack of binding reduction and limitation commitments on developing countries during the first compliance period and (2) the perceived potential for adverse economic impact on Kyoto-compliant industrialized countries.[86] Fearing that the Clinton Administration would ratify of the Kyoto Protocol without binding participation on the part of developing nations, Congress passed the Byrd-Hagel resolution in 1997, which stated the:

> United States should not be a signatory to any protocol . . . which would mandate new commitments to limit or reduce GHGs for the Annex 1 parties, unless the protocol or other agreement also mandates new specific scheduled commitments to limit or reduce GHGs for developing country parties within the same compliance period or which would result in serious harm to the economy of the United States.[87]

The Byrd-Hagel resolution passed unanimously (95-0), demonstrating broad bipartisan agreement that the United States should not implement the Kyoto Protocol as written.[88] Congressional concern over the adverse impacts on the United States' economy and disparity of treatment between developing and industrialized countries has not waned over the last four years.

To further secure its position, in 1998, Congress mandated that no 1999 EPA-appropriated funding be used to "propose or issue rules, regulations, decrees or orders for the purpose of implementation or in preparation for implementation of the

---

[86] Bush Position, *supra* note 1. "The report summarizes the initial positions of the Bush Administration on climate change after three months of an ongoing Cabinet-level review. It includes an overview of the current US actions to address climate change, an analysis of the Kyoto Protocol, a discussion about advancing the science of climate change and the technology to address it, and a plan for promoting cooperation in the Western Hemisphere and the world." *Id. Cf.* Philip Gwage, *Equity and Global Climate Change: An LDC Perspective*, *available at* http://www.pewclimate.org/events/conf_presentations/gwage.doc (visited Mar. 16, 2002) [hereinafter *Equity*] (explaining the principle of equity as it relates to Kyoto compliance requirements).

[87] S. Res. 98, *supra* note 85.

[88] *Id.*

Kyoto Protocol."[89] The 2000 and 2001 EPA budgets contained the same limitation.[90] Due to the specificity of its restrictions on the EPA's use of funding, Congress has effectively precluded the EPA's ability to establish any meaningful guidelines to address global warming if those guidelines remotely resemble those of the Kyoto Protocol.[91]

The shift from the Clinton administration to the Bush Administration has strengthened the United States' vocal opposition to the Kyoto Protocol.[92] According to President Bush, the "Kyoto Protocol is fatally flawed in fundamental ways."[93] Despite the onerous negotiating process involved in establishing the Kyoto Protocol, President Bush stated that the targets and timetables for the long-term goals "were arrived at arbitrarily and were not related to any specific scientific information or long-term objective."[94] Accordingly, President Bush's view on the Kyoto Protocol is in keeping with that of other members of his Administration.

A recent report issued by the Bush Administration cabinet, at the request of President Bush, stated that the Kyoto Protocol fails to establish long-term goals based on science, poses serious and unnecessary risks to the United States and world economies, and is ineffective in addressing climate change because it excludes major parts of the world.[95] EPA Administrator Christine Todd Whitman stated "The Kyoto Protocol is unfair to the United States and to other industrialized nations because it exempts 80 percent of the world from compliance."[96]

In addition to its fear that the Kyoto Protocol is unfair and lacking in scientific support, the Bush Administration has declared that the costs implicated in complying with the Kyoto Protocol's GHG emission reduction and limitation commitments could be quite substantial.[97] The Bush Administration

---

[89] *See* H.R. Conf. Rep. 769, 105th Cong. (1998).

[90] *Reduction Mandates*, *supra* note 85.

[91] *See, e.g.*, Michael J. O'Grady, *Going Nowhere Fast: The Environmental Record of the 105th Congress*, 29 ENVTL. L. REP. 10085 (1999).

[92] Bush Position, *supra* note 1.

[93] *Id.*

[94] *Id.*

[95] *Id.*

[96] *Id. Cf. Equity*, *supra* note 86.

[97] Bush Position, *supra* note 1.

has compared compliance with the Kyoto Protocol with that of the impacts of the 1970's oil crisis: potential transformation of the United States economy from "one of strong growth to recession, with potentially significant repercussions for the global economy."[98]

Supporters of President Bush's stance on the Kyoto Protocol have applauded his "go-slow" approach and have further commended him for asserting that the Kyoto Protocol is "fatally flawed."[99] However, even those in agreement with the President's decision not to ratify the Kyoto Protocol are supportive of some type of domestic program to address global climate change issues. As Senator Lieberman pointed out during a July 17, 2001 press statement: "Despite President Bush's unwillingness to be a leader, there is growing support from both parties who want America to be a part of the world community in addressing the crisis of climate."[100]

Agreeing that the United States should not ignore increasing domestic GHG emissions, other senators also advocate the United States' involvement in a program to reduce and limit GHG emissions. For instance, Senator Jeffords, the head of the Senate Environment Committee, is urging the Bush Administration to reduce global warming linked to CO_2 emissions in the wake of the Administration's refusal to ratify the Kyoto Protocol.[101] Jeffords has proposed new legislation that would require GHG emission reductions from power plants.[102] Senator McCain and Senator Kerry proposed legislation that would speed technology investments for the curtailment of GHG emissions.[103] Senator Stevens has proposed legislation to in-

---

[98] *Id.*

[99] *See, e.g.*, Jon E. Hilsenrath, *Environmental Assessment Favor Slow Approach*, THE ASIAN WALL ST. J., Aug. 8, 2001, at M8.

[100] Planet Ark News Search Results – World Environment News UPDATE: *Lieberman Says Bush Made US Climate "Renegade"* by Patrick Connole (July 18, 2001), *available at* http://www.planetark.org/avantgo/dailynewsstory.cfm?newsid=11620 (visited Jan. 2, 2002).

[101] Planet Ark News Search Results – World Environment News: *Ex-Republican Senator Aims at Power Plant Emissions* (July 17, 2001), *available at* http://www.planetark.org/avantgo/dailynewsstory.cfm?newsid=11634 (visited Jan. 2, 2002).

[102] *Id.*

[103] Planet Ark News Search Results – World Environment News: *Senator McCain Urges Bush to Act Now on Climate Change* by Patrick Connole (July 11, 2001), *available at* http//:www.planetark.org/avantgo/dailynewsstory.cfm?newsid=11507 (visited Jan. 2, 2002).

crease GHG emission reduction and limitation research and development.[104] Even Senator Byrd, the coauthor of the Byrd-Hagel resolution, gives credence to the proposition that the United States should curb its GHG emissions.[105] Senator Byrd is co-sponsoring a climate bill to provide almost five billion dollars for research and development toward GHG emission reduction and limitation.[106]

While the current administration refuses to ratify the Kyoto Protocol as written, it is not the only mechanism by which to reduce and limit domestic GHG emissions. In many ways, the United States has been a pioneer in the field of environmental regulation. Therefore, current environmental regulatory programs may be used to regulate GHG emissions or may be used to provide guidance in developing a new and more appropriate mechanism to address GHG emission limitations and reductions.

C. UNITED STATES DOMESTIC RESPONSE TO GLOBAL WARMING

In proposing a domestic response to combat global warming, the Kyoto Protocol is helpful in determining which GHG emissions require regulation within the United States. All six of the anthropogenic CO_2 equivalent GHGs identified in the Kyoto Protocol are present in the United States and, therefore, require regulation. If the United States plans to regulate GHG emissions though an existing regulatory mechanism, it could potentially rely on one program found within the EPA's Clean Air Act (CAA).[107] Additionally, two environmental regulatory schemes that rely on market-based incentives, EPA's Title IV Acid Rain Program and California's RECLAIM Program, can serve as a template for the creation of the new GHG regulatory scheme. This section outlines those programs.

---

[104] Planet Ark News Search Results – World Environment News UPDATE: *Senate Panel Weighs New Climate Change Bill* by Patrick Connole (July 19, 2001), *available at* http://www.planetark.org/avantgo/dailynewsstory.cfm?newsid=11645 (visited Jan. 2, 2002).

[105] *Id.*

[106] *Id.*

[107] Clean Air Act, Title I, §101, 42 U.S.C. § 7401 et seq. (1990) The EPA's authority to regulate the emissions of various constituents originates from the Clean Air Act.

It is important to keep in mind, however, the current ban on EPA-appropriated funding for programs that resemble the Kyoto Protocol.[108] In order for the EPA to implement a program aimed at reducing and limiting GHG emissions, as outlined in the Kyoto Protocol, Congress will have to lift the funding ban. Nonetheless, by its very nature, a domestic program would not encompass the provisions in the Kyoto Protocol that Congress found problematic in 1997 when it adopted the Byrd-Hagel Resolution. In addition, many of the same Senators that objected to the ratification of the Kyoto Protocol now support instituting a program to address global warming.[109] Therefore, the growing political support for domestic GHG regulation will help facilitate the creation and implementation of a domestic GHG emission reduction and limitation program.

1. Current Federal Program: National Ambient Air Quality Standards

As of 2002, at least one program outlined under the CAA may potentially serve as a successful regulatory scheme for addressing domestic GHG emission reductions and limitations. This program is the National Ambient Air Quality Standards (NAAQS) under §108 and §109 of the CAA.[110] NAAQS establishes outdoor air quality standards.[111]

Section 108 of the CAA, Air Quality Criteria and Control Techniques, is the air pollutant identification portion of NAAQS. Section 302 of the Act defines an air pollutant as any air pollutant agent or combination of agents emitted into or that otherwise enter the ambient air.[112] Under §108, the EPA is authorized to revise the list of air pollutants established under NAAQS and may add newly identified air pollutants.[113] Newly identified air pollutants have two levels of control: primary standards for promoting the protection of public health

---

[108] *See supra* notes 86-91 and accompanying text.

[109] *See supra* notes 99-106 and accompanying text.

[110] Clean Air Act, Title I, §§108-109, 42 U.S.C. §§7408-7409 (1990).

[111] EPA Terms of the Environment (last modified July 6, 1998) *available at*: http://www.epa.gov/ students/terms_of_environment.htm.

[112] Clean Air Act, Title I, §302, 42 U.S.C. §7602 (1990).

[113] Clean Air Act, Title I, §108, 42 U.S.C. §7408 (1990).

and secondary standards for promoting the protection of public welfare.[114]

Any constituent that the EPA adds to the list of air pollutants for control under NAAQS through §108 and §109 is analyzed using two factors.[115] First, the EPA must make a judgment as to whether the constituent has the potential to reasonably endanger the public health or welfare.[116] Second, the EPA must consider the constituent's numerous and diverse mobile and stationary sources.[117]

Since GHGs are agents emitted into the ambient air, GHGs are likely to fit the definition of an air pollutant under §302 of the CAA.[118] As such, each of the six GHGs may be included as an air pollutant under NAAQS, assuming it meets the aforementioned factors mandated for the addition of a constituent as a new pollutant. For instance, under an EPA review of CH_4, the EPA would assess the potential for CH_4 to reasonably endanger the public health or welfare. The EPA would also need to consider the numerous and diverse mobile and stationary sources of CH_4 before identifying it as an air pollutant for regulation under NAAQS.

The pivotal inquiry in assessing whether a constituent can be regulated under NAAQS hinges on the constituent's potential to reasonably endanger public health or welfare. How to make that assessment, however, is not readily clear from the statutory language. Holding that the determination as to whether a constituent "reasonably endangers" the public should be made by the regulating agency, the District of Columbia Circuit Court explained that:

---

[114] Clean Air Act, Title I, §109, 42 U.S.C. §7409 (1990).

[115] *See supra* note 113. *See also supra* note 114.

[116] *See supra* note 113.

[117] *Id. See also supra* note 112. "Effects on welfare includes, but is not limited to, effects on soils, water, crops, vegetation, man-made materials, animals, wildlife, weather, visibility, and climate, damage to and deterioration of property, and hazards to transportation, as well as effects on economic values and on personal comfort and well-being, whether caused by transformation, conversion, or combination with other air pollutants." *Id.*

[118] Ambient air is defined by a two-prong test: whether the location of the air is external to buildings and whether the air is accessible to the general public. Clarification Letter from EPA for Ambient Air Definition, *available at* http://www.epa.gov/ttn/nsr/gen/memo-x.html (visited Mar. 16, 2002).

> Where a statute is precautionary in nature, the evidence difficult to come by, uncertain, or conflicting because it is on the frontiers of scientific knowledge, the regulations designed to protect the public health, and the decision that of an expert administrator, we will not demand rigorous step-by-step proof of cause and effect. The Administrator may apply his expertise to draw conclusions from suspected, but not completely substantiated, relationships between facts, from trends among facts, from theoretical projections from imperfect data, from probative preliminary data not yet certifiable as "fact," and the like.[119]

American Trucking Ass'n. Inc. v. U.S.E.P.A followed this reasoning.[120] The court held that EPA's decision to adopt and set air quality standards need only be based on "reasonable extrapolations from some reliable evidence."[121] In so holding, the court noted that §108(a)(1)(A) of the CAA requires no proof of causation; the Administrator may deem emissions "air pollutants" when they "in his judgment, cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare."[122] Therefore, courts will uphold the EPA's decision to add a new constituent for NAAQS regulation so long as its addition relies on reasonable extrapolations from some reliable evidence.

2. Current Federal and State Programs: A Template for Regulating GHG Emissions

While NAAQS has the potential to regulate GHGs as air pollutants, other approaches may be more appropriate. For example, the EPA initially relied on NAAQS to regulate nitrous oxides (NOx) and sulfur oxides (SOx) emissions from Midwest power plants, the major culprits contributing to acid rain in the Northeast. NAAQS, however, soon proved to be unsuccessful in adequately regulating the power industry's NOx and SOx

---

[119] Natural Res. Def. Council v. Thomas, 805 F.2d 410, 432, 256 U.S. App. D.C. 310, 332 (D.C. Cir. 1986) *citing* Ethyl Corp. v. EPA, 541 F.2d 1, 28 (D.C. Cir.) (footnotes omitted), *cert. denied,* 426 U.S. 941, 96 S. Ct. 2662, 49 L.Ed.2d 394 (1976).

[120] 175 F.3d 1027, 1055 U.S. App. D.C. 16, 45 (D.C. Cir. 1999).

[121] *Id. Citing* Natural Res. Def. Council v. Thomas, 805 F.2d 410, 432, 256 U.S. App. D.C. 310, 332 (D.C. Cir. 1986).

[122] *Id.*

emissions.[123] As a result, Congress promulgated a new program under the CAA that authorized EPA to implement and enforce a more aggressive approach to NOx and SOx emission reduction and limitation.[124] This program, known as the Acid Rain Program, under Title IV of the CAA, is a regulatory scheme relying on market-based incentives.

With respect to GHGs, the United States should also review current environmental regulatory programs in order to develop a new program that most effectively addresses global warming. In light of the industry-backed political forces that tend to favor scant environmental regulation, a market-based incentives program may well be easier to pass through Congress than a control and command approach to reducing GHGs.

Two programs merit review as potential templates for developing a new GHG regulatory scheme: EPA's CAA Title IV program and California's South Coast Air Quality Management District's (SCAQMD) Regional Clean Air Incentives Market (RECLAIM) program. As discussed above, the Acid Rain Program is a market-based incentives regulatory approach to controlling power plant NOx and SOx emissions.[125] Likewise, RECLAIM was developed to address NOx and SOx emissions in the Los Angeles air basin.[126] A new regulatory program to most effectively address domestic GHGs contributing to global warming will, in part, be based on analyses of current programs' weaknesses and strengths.

a. EPA's Acid Rain Program: Title IV of the CAA

The Acid Rain program under Title IV of the CAA, promulgated in 1990, regulates power generation NOx and SOx emissions through a market-based incentives approach.[127] Imple-

---

[123] Byron Swift, *How Environmental Law Works: An analysis of the Utility Sector's Response to Regulation of Nitrogen Oxides and Sulfur Dioxide under The Clean Air Act*, 14 TUL. ENVTL. L.J. 309, 314 (2001).

[124] Clean Air Act, Title IV, §401, 42 U.S.C. §7651 (2001).

[125] THE PLAIN ENGLISH GUIDE TO THE CLEAN AIR ACT, U.S. EPA, Pub. No. EPA-400-K-93-001 (1993) [hereinafter Plain English Guide].

[126] *See generally* South Coast Air Quality Management District Website, *at* http://www.aqmd.gov (last modified Dec. 27, 2001). *See also* South Coast Air Quality Management District RECLAIM Rules, *available at* http://www.aqmd.gov/rules/html/tofc20.html (last modified May 30, 2001).

[127] *Supra* note 124.

mentation of Title IV occurs through an integrated set of rules and guidelines established to meet three objectives.[128] The first objective is achieving environmental benefits through SOx and NOx emission reductions.[129] The second objective is energy efficient pollution prevention and facilitating active trading of allowances.[130] The last objective is the use of other compliance options to minimize compliance costs, maximize economic efficiency, and permit strong economic growth.[131]

Title IV focuses on two divergent regulatory schemes to reduce NOx and SOx emissions from utility sources: (1) a rate-based standard for NOx and (2) a cap-and-trade approach for SOx.[132] With regard to the SOx cap-and-trade approach, the EPA determined the baseline allowance allocations for the utilities according to their average emissions between 1985 and 1987.[133] Allowances are issued annually and entitle the holder to emit a certain number of tons of SOx. Each year, the emission source retires from its bank of emission allowances the number of tons of SOx emitted during that year.[134] Each successive year, allowances are issued in smaller quantities to emission sources, according to a fixed statutory schedule, to ensure Title IV's targeted SOx reductions of 50 percent.[135] When an emission source exceeds its annual allowance, it receives a $2,000 fine for each exceeded ton of emissions and is forced to offset the violation the following year.[136]

---

[128] Plain English Guide, *supra* note 125.

[129] *Id.*

[130] *Id.*

[131] *Id.*

[132] *See generally* Byron Swift, *Command and Control: Why Cap and Trade Should Replace Rate Standards for Regional* Pollutants, 31 ENVTL. L. REP. 10330 (2001). *See also* Clean Air Act, Title IV, §403, 42 U.S.C. § 7651b (2001). *See also* Clean Air Act, Title IV, §407, 42 U.S.C. § 7651f (2001).

[133] Clean Air Act, Title IV, §404, 42 U.S.C. §7651c (2001). The EPA may authorize, under certain circumstances, adjustments to the baseline allowance allocations. *Id.*

[134] Richard B. Stewart, James L. Connaughton & Lesley C. Foxhall, *Designing an International Greenhouse Gas Emissions trading System*, 15 NAT. RES. & ENV'T 160, 161 (Winter, 2001).

[135] *See supra* note 133.

[136] Clean Air Act, Title IV, §412, 42 U.S.C. §7651k (2001). An offset is where a source must reduce current emissions to make room for new emissions. *Id.* An Example would be a facility that wants to emit an additional ten tons, it would be required to reduce its existing emissions by twenty tons making a overall reduction of ten tons of emissions.

To facilitate the SOx cap-and-trade program, two phases of the cap-and-trade regulatory scheme were established. The Phase I required the 263 dirtiest coal-fired generating units to reduce SOx emissions to 5.7 million tons.[137] Phase II, implemented in 2000, includes the 263 Phase I coal-fired generating units and all other generating units larger than twenty-five megawatts.[138] The overall SOx emission cap for Phase II is 8.95 million tons.[139]

The trading aspect of Title IV is handled by the Chicago Board of Trade Futures Market; the tracking of the allowance trading is handled by the Continuous Emissions Monitoring System.[140] The EPA records permit purchases through an Allowance Tracking System.[141] The purchases of emission allowances from other emission sources are made by private transactions through annual EPA sponsored auctions.[142] As of June 1997, nearly 2,700 trades had occurred involving 42.4 million allowances. [143]

Title IV does not dictate the means by which a particular emission source is to satisfy its emissions requirements.[144] The emission source may rely on any of a number of strategies, such as innovating new technology, switching to low-sulfur coal, or shutting down a production unit.[145] For example, some emission sources are developing new technologies to improve efficiency. Regulated sources have generated scrubber innovations and initiated research on fuel blending.[146] Within a year of the program's 1995 commencement, emissions were almost 40 percent below the reduction schedule target.[147] Contemporaneously, total domestic electricity generation actually increased by over two and a half percent.[148] Control costs for the

---

[137] *See supra* note 133.
[138] Clean Air Act, Title IV, §405, 42 U.S.C. §7651d (2001).
[139] *Id.*
[140] *See supra* note 134.
[141] *See supra* note 136.
[142] *Id.*
[143] *See supra* note 134.
[144] *See supra* note 124.
[145] Clean Air Act, Title IV, §408, 42 U.S.C. §7651g (2001).
[146] Jennifer Yelin-Kefer, Note, *Warming up to an International Greenhouse Gas Market: Lessons from the US Acid Rain Program*, 20 STAN. ENVTL. L.J. 221, 238 (2001).
[147] Plain English Guide, *supra* note 125.
[148] *See supra* note 146.

Title IV regulatory scheme were nearly 50 percent less than those of the command and control regulatory alternative.[149] The pollution reductions accomplished under Title IV account for over 50 percent of the total pollution reductions of the last ten years.[150] Remarkably, the Title IV program is administered by an EPA staff of less than 100 nationwide.[151]

b. The South Coast Air Quality District's Regional Clean Air Incentives Market Program

In keeping with EPA's Title IV Acid Rain program, California adopted a market-based incentives program to control NOx and SOx emissions. In 1991, SCAQMD introduced a marketable permit system to help regulate the 12,000 square mile Los Angeles air basin.[152] SCAQMD created and implemented RECLAIM in 1993 to specifically address increasing NOx and SOx emissions.[153] RECLAIM is based on the tradable permit approach.[154] RECLAIM, however, differs from the traditional cap-and-trade program in that regulated sources have differing "caps" for emitting the same pollutants.

Under RECLAIM, there is no explicit cap on emissions; rather there are overall mandated emissions reductions.[155] These emissions reductions vary depending on the emission source and are measured against a baseline emissions level. Emission rights allocated to the regulated emission sources were based on the existing emissions at the time RECLAIM was adopted. RECLAIM further established phased reductions of emission allowances for the period of 1994 to 2003.[156] The regulated emission sources receive declining emission allocations as the years progress towards 2003.[157] Currently over

---

[149] *See supra* note 134.

[150] *Id.*

[151] *See supra* note 146.

[152] *See* South Coast Air Quality Management District Rules 2000-2015 (1993), *available at* http://www.aqmd.gov/rules/html/tofc20.html.(last modified May 30, 2001).

[153] *Id.*

[154] *See supra* note 126.

[155] *See supra* note 154.

[156] *Id.*

[157] *See supra* note 152.

500 industries are regulated by RECLAIM in an area that has fourteen million residents.[158]

D. MARKET-BASED INCENTIVES: THEORY

Since GHGs will arguably be most effectively regulated under a market-based incentives program, it is important to address the theories behind this approach to environmental regulation. As one industrialist put it "all pollution and all waste is lost profit."[159] In other words, the more efficient the production process is, the fewer emissions result.[160] As a means to integrating efficient production with environmental regulation, experts began supporting a market-based incentives approach to environmental regulation.[161] By the 1970's regulators began looking at various market-based incentives approaches for establishing environmental regulations, though they were still not as popular or accepted as the traditional command and control approaches.[162]

In 1988, market-based incentives finally received significant attention, specifically with regard to air pollution and emission reductions and limitations. Although there is still disagreement as to the effectiveness of this approach, academia, government, private industry, and the environmental community began to explore market-based incentives as an

---

[158] CorpWatch, *Trading Places: Lethal Lessons from LA*, (1998), *available at* www.igc.org/trac/feature/climate/pollution/box.html (visited Jan. 2, 2002) [hereinafter *Lethal Lessons*].

[159] Global Futures Foundation: *Market-Based Environmental Laws: 100 Ways to Use Prices to Prevent Pollution* (1997), *available at* http:www.globalff.org/feature_articles/previous_articles/pre-100w.htm (last modified Apr. 11, 1999) [hereinafter *100 Ways*]. This article quoted William K. Coors speaking on market-based environmental policy.

[160] *Id.*

[161] John A. Barrett, Jr., *The Global Environment and Free Trade: A Vexing Problem and a Taxing Solution*, 76 IND. L.J. 829, 840 (2001).

[162] World Resources Institute: *Economic instruments for pollution control and prevention -- A brief overview* by Duncan Austin, (Sept. 1999), *available at* http://www.wri.org/wri/incentives /austin.html (last modified: Apr. 03, 2000). "In shaping the early environmental policies of the 1970s, policy-makers instituted standard-based systems in keeping with prevailing legal traditions of dealing with activities deemed excessive by society (Spence and Weitzman, 1994). This "command and control" pattern of regulation set uniform targets for how much firms should emit, often by dictating the processes that should be used in their facilities. Two broad types of command and control regulations are discernible: technology-based and performance-based (Stavins and Whitehead, 1992)." *Id.*

alternative to the traditional command and control approach.[163] A report titled "Harnessing Market Forces to Protect Our Environment: Initiatives for the New President" by Robert Stavins brought market-based incentives to the forefront of environmental regulation.[164] As a result, the market-based incentives approach was adopted in the 1990 CAA amendments as Title IV and eventually made its way into state regulatory programs, such as RECLAIM.

From a policy standpoint, market-based incentives assign legal and financial responsibility to the party most responsible for creating the emissions. As a result, the more emissions created by the party, the more the party must pay. Conversely, if a party reduces its emissions, its costs are likewise reduced. This approach is thought to stimulate the free market by allowing the parties responsible for the emissions to determine how to best utilize their monetary and natural resources.[165] According to Harvard University's Environment and Natural Resources Program, market-based incentives can be "cost effective, minimizing the aggregate cost of achieving an environmental target and can provide dynamic incentives for the adoption and diffusion of better technologies."[166]

Through market-based incentives, the cost of misusing and/or overusing a resource, such as ambient air, is externalized. Therefore, there is a major financial incentive for reducing resource misuse and/or overuse.[167] Usually, installing in-

---

[163] *See generally* Garrett Hardin, *The Tragedy of the Commons*, 162 SCI. 1243, 1245 (1968). A theory has emerged to explain why market-based incentives are superior to command and control regulation. This theory is premised, in part, on the 1968 article by biologist Garrett Hardin: The Tragedy of the Commons. Air, water, land and all other resources available for common use are typically free. By assigning economic value to a natural resource, efficiency would result because industry would regard consider it in their costs. By increasing natural resource efficiency, the outcome predicated in Tragedy of the Commons is avoided. *Id.*

[164] Harvard University's John F. Kennedy School of Government – Environmental & Natural Resources Program: *Market-Based Environmental Policy*, *available at* http://ksgnotes1.harvard.edu/BCSIA/ENRP.nsf/web/MktEnvlPol (last modified July 17, 2001).

[165] *100 Ways*, *supra note* 159.

[166] *See supra* note 164.

[167] Jonathon R. Nash, *Too Much Market? Conflict Between Tradeable Allowances and the "Polluter Pays" Principle*, 24 HARV. ENVTL. L. REV. 465, 479 (2000). *See also* Richard B. Stewart, James L. Connaughton & Lesley C. Foxhall, *Designing an International Greenhouse Gas Emissions Trading System*, 15 NAT. RES. & ENV'T 160, 161 (Winter, 2001).

novative technology to reduce or limit emissions is preferable to polluting when the cost of installing technology is less then buying the right to emit from another party.[168] Ideally, innovation spurs new technologies, which in turn results in emission reductions.

In order to facilitate innovative technologies, enforcement of uniform standards must be equally borne by all parties under the regulation.[169] A strict uniform maximum emissions level, coupled with the ability to trade, ensures continuous innovation. For example, a source's ability to sell excess emissions rights to a party that needs them to comply with the environmental regulatory cap creates an incentive to develop cleaner technology.[170] Further, the option to trade emission rights reduces the risks associated with innovation if the new technology fails.[171] As a result, the emerging successful technologies and a decreasing overall cap reduce emissions and create a more efficient and productive process so that both the parties and the environment benefit.[172]

Under a market-based incentives approach, a buyer may purchase additional emission rights from parties who have not used their allocated rights. Once the buyer purchases the right to emit from a seller, the seller no longer has the right to emit the quantity of emissions sold. Theoretically, this system of trading creates a pollution control system that is the most cost effective.[173] When a party emits more emissions than authorized, the party has two options: (1) purchase additional rights to emit; or (2) suffer a non-compliance fine. The fine for exceeding the emissions limit tends to be more costly than trading or process modification.[174]

The compliance system for a market-based incentives program is imperative for the regulatory scheme is to be successful. Ideally, the compliance scheme will encompass a continuous monitoring system based on: (1) the regulated sources' re-

---

[168] *See supra* note 161.
[169] *See supra* note 164.
[170] *Id.*
[171] *Id.*
[172] *Id.*
[173] *Id.*
[174] *Id.* The automation of the fines for non-compliance is directly related to the system for monitoring emission sales and purchases by the various buyers and sellers.

ported emissions and (2) the trading traffic reported by the overseeing entity.

IV. CRITIQUE

Having introduced some current programs and approaches by which a domestic GHG regulatory program might be guided, it is important to analyze whether these programs are suitable for the regulation of GHGs. This section explores each program's weaknesses and strengths with respect to potential GHG regulation.

A. NATIONAL AMBIENT AIR QUALITY STANDARDS: INCORPORATING GHGS FOR REGULATION

The EPA has identified six constituents for primary and secondary NAAQS regulation.[175] Those constituents currently regulated under NAAQS include ozone (O_3), carbon monoxide (CO), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), particulate matter (PM_{10}), and lead (Pb).[176] Because none of the GHGs are currently identified under NAAQS, the two factors for adding a new air pollutant must be considered: (1) the GHG's ability to reasonably endanger public health or welfare, and (2) the quantity and mobility of the GHG's sources.[177]

Looking at the first factor, to determine a GHG's ability to reasonably endanger public health or welfare, reliable scientific data is necessary. As previously mentioned, scientific research

---

[175] *See* EPA Green Book: *Welcome to the Green Book: Nonattainment Areas for Criteria Pollutants* (Aug. 16, 2001), *available at* http://www.epa.gov/oar/oaqps/greenbk/index.html (visited Jan. 2, 2002) [hereinafter Green Book].

[176] *Id.* "Ozone (O_3), a photochemical oxidant, is a major smog component. While O_3 in the upper atmosphere is beneficial to life by shielding the earth from harmful ultraviolet radiation, high ground level concentrations are a major health and environmental concern. Carbon monoxide (CO) is a colorless, odorless and poisonous gas produced by incomplete fuel burning. Nitrogen dioxide (NO_2) is a brownish, highly reactive gas found in all urban atmospheres. NO_2 irritates the lungs, causes bronchitis and pneumonia, and lowers respirator infection resistance. High sulfur dioxide (SO_2) concentrations affect breathing and may aggravate existing respiratory and cardiovascular disease. Particulate matter (PM) includes dust, dirt, soot, smoke and liquid droplets directly emitted into the air by various sources. SO_2 and VOCs are also PM. Lead (Pb) exposure can occur through inhalation of air and ingestion of Pb. Excessive Pb exposure can cause seizures, mental retardation and/or behavioral disorders." *Id.*

[177] *See supra* note 113.

into the global warming phenomenon and the adverse impacts of GHG emissions is abundant.[178] Therefore, it is possible to assimilate generalized scientific data that supports the premise that GHGs have the potential to reasonably endanger public health or welfare.[179] GHG emission modeling shows that GHG emissions, individually and aggregately, adversely effect the environment.[180] Scientists predict that if GHG emissions continue to rise, the natural environment will experience permanent alterations that will force biota to either adapt or face extinction.[181] Using these findings and predictions, a tenable argument exists that GHG emissions have the potential to reasonably endanger public health and welfare.[182]

Although generalized global warming data is available, specific studies on the ability of GHGs to reasonably endanger public health or welfare are, nonetheless, lacking. While an argument can be made that GHGs impact on global warming has the potential to reasonably endanger public health or welfare, critics of global warming science will inevitably challenge the validity of such data.[183] Furthermore, while numerous studies suggest catastrophic impacts will result from global warming, some studies suggest that global warming is a natural event that pre-dated anthropogenic GHGs.[184] As the science of climate change remains an unsettled and contentious arena in the United States, the express scientific support essential to identify a GHG as an air pollutant for regulation un-

---

[178] *See supra* notes 26-59 and accompanying text.

[179] FAQ, *supra* note 8.

[180] S2300-02, *supra* note 4 (statement by Sen. Kerry referencing a Dec. 1999 article).

[181] Sheet 6, *supra* note 9. *See also FAQ*, *supra* note 8.

[182] Am. Trucking , 175 F.3d at 1055. The court will uphold the EPA's decision to add a new constituent for air quality regulation so long as its adoption is based on reasonable extrapolations from some reliable evidence. *Id.*

[183] *See, e.g.*, S5291-01, *supra* note 54.

[184] Ohio State Research: *Viewpoint: Global Warming Natural May End Within 20 Years* by Pam Frost Gorder, *available at* http://www.osu.edu/researchnews/archive/nowarm.htm (last modified June 14, 2001). Dr. Robert Essenhigh, E.G. Bailey Professor of Energy Conservation in Ohio State's Department of Mechanical Engineering, believes that atmospheric CO_2 is not the cause of global warming. *Id.* Based on his model, Dr. Essenhigh suggests the Earth may reach a peak in the current temperature profile within the next ten to twenty years, and then it could begin to cool into a new ice age. *Id.*

der NAAQS is unfortunately unlikely found from existing climate change science.[185]

However, if any of the six GHGs are capable of satisfying the "reasonably endanger" requirement under NAAQS, the identifiable and diverse source requirement could be easily met.[186] GHG emission sources are diverse and identifiable. The number of industries emitting GHGs into the atmosphere is great.

Using CO_2 emission sources as an example, over 95 percent of CO_2 is generated by fossil fuel combustion. This 95 percent can be broken down as follows: 33 percent from electricity generation, 33 percent from transportation, 12 percent from direct residential and commercial use, and 20 percent from industrial use.[187] The 33 percent of CO_2 emissions from transportation can further be broken down: 13.9 percent from direct combustion of cars, 11.2 percent from direct combustion of trucks, 4.5 percent from direct combustion from airplanes, 1.8 percent from direct combustion of ships, 0.6 percent from pipelines, and 0.8 percent from railroads.[188] The 12 percent of direct residential and commercial use can also further be broken down: 9.3 percent is attributed to gas and oil heating and cooling, 1.5 percent to gas water heating, and 1.2 percent to gas appliances.[189] Considering the statistical information on CO_2 emissions alone, it is clear that CO_2 sources are both diverse and identifiable. Therefore, there should be few, if any, obstacles to classifying CO_2 as an identifiable and diverse source for purposes of NAAQS.

CO_2 is a representative example of the other five GHGs. It is unlikely that GHG regulation under NAAQS would be hindered by the inquiry as to whether the GHG sources are identifiable and diverse. The limiting factor, therefore, to regulating

---

[185] *See supra* note 182. The court will uphold the EPA's decision to add a new constituent for air quality regulation so long as its adoption is based on reasonable extrapolations from some reliable evidence. *Id.*

[186] *See generally* CRS Issue Brief for Congress IB97057: *Global Climate Change: Market-Based Strategies to Reduce Greenhouse Gases* by Larry Parker (April 4, 2001), *available at* http://cnie.org/NLE/CRSreports/Climate/clim-5.cfm (visited Jan. 2, 2002) (outlining the identifiable sources of greenhouse gas emission sources).

[187] *Id.*

[188] *Id.*

[189] *Id.*

GHGs under NAAQS is the "reasonably endanger" factor, which is ultimately at the discretion of the regulating agency.

When Congress developed the statutory language creating NAAQS, GHGs emission issues were not yet contemplated.[190] In light of the limiting statutory language, the ability to regulate GHGs under NAAQS is debatable. Unfortunately, the specific scientific data to convince the EPA that GHGs reasonably endanger public health or welfare may not be available. The connection between the data and environmental impacts is likely too attenuated to warrant GHG regulation under NAAQS.

B. CURRENT FEDERAL AND STATE MARKET-BASED INCENTIVES PROGRAMS: A TEMPLATE FOR GHG EMISSION REGULATION

While regulating GHGs under NAAQS may not be appropriate due to the difficulty in meeting the "reasonably endanger" standard, Congress has the authority to promulgate a new program to meet the challenge of global warming. The Title IV program or the RECLAIM program may well be more suitable templates for the development of a new program to regulate domestic GHGs.

1. Title IV as a Template for Regulating GHGs

Title IV's establishment of allowances for fossil fuel electric generating plants has been widely praised as "one of the most successful environmental programs of the past decade."[191] In fact, EPA's Title IV program is responsible for 50 percent of the total pollution reductions made in the last ten years.[192] Title IV's noteworthy impact on pollution reduction stems from the program's very design; a design based on market incentives, namely the cap-and-trade system.[193] Of various mechanisms

---

[190] *See, e.g.*, 146 CONG. REC. H4823-02 (daily ed. June 21, 2000) (statement by Rep. Knollenberg referencing a Legal Affairs Committee Report on CO_2 regulation that stated "even though the most direct evidence shows that Congress did not intent that EPA regulate CO_2").

[191] Dallas Burtraw & Byron Swift, *A New Standard of Performance: An analysis of the Clean Air Act's Acid Rain Program*, 26 ENVTL. L. REP. 10411, 10411 (1996).

[192] *See supra* note 134, at 162.

[193] *See, e.g.*, Byron Swift, *Command without Control: Why Cap-and-Trade Should*

available to implement a GHG emission reduction and limitation program, Title IV's cap-and-trade approach for SOx seems the most appropriate model. However, while the basic cap-and-trade approach should be used in creating a GHG emission reduction and limitation program, the Title IV program could benefit from improvement.

Whereas Title IV relied on only two years worth of data to develop the baseline, the GHG program should extend the baseline period beyond two years in order to compile a more accurate representation of emission productions. If the Title IV allowances provision is adopted under a GHG program, the method by which the allowances are established should also incorporate more than a mere two years worth of data.[194] Furthermore, if "bonus" allowances are awarded under a GHG program, a more restrictive method of distributing allowances should be established.[195]

Some aspects of Title IV do not, however, require improvement. Title IV requires new emission sources to purchase their rights to emit from existing sources to ensure that the maximum emission levels never increase beyond the maximum cap.[196] This concept should be included in a GHG program because, if properly implemented and enforced, GHG emissions would never exceed the maximum cap that was established by way of the baseline. Additionally, the concept of retiring emissions at the end of each year to reduce the overall cap should also be used in a GHG program.[197]

The "trade" portion of the cap-and-trade program is also essential. A GHG program should adopt the general concept of Title IV's trading program for SOx, whereby parties buy, sell, or hold emission rights.[198] While the general concept should be

---

Replace Rate Standards for Regional Pollutants, 31 ENVTL. L. REP. 10330, 10331 (discussion on Cap-and-Trade control of SOx).

[194] Byron Swift, *How Environmental Law Works: An analysis of the Utility Sector's Response to Regulation of Nitrogen Oxides and Sulfur Dioxides under the Clean Air* Act, 14 TUL. ENVTL. L.J. 309, 320. (2001).

[195] *Id.* at 325. Nearly 4 million bonus allowances were allocated during Phase I, which ultimately resulted in a bank of 11.6 million allowances saved for use in Phase II. *Id.* The allowance bank is not expected to be depleted until 2010. *Id.*

[196] *See, e.g., supra* note 124.

[197] *Id.*

[198] *See generally* Clean Air Act, Title IV, §403, 42 § U.S.C. 7651b (2001) (outlining the SOx allowance program).

adopted, changes should be made to improve pollution reduction.

For instance, the ability to bank allowances should be limited and trading should be restricted in areas depending on the location of the purchasing party. A limit should be placed on the length of time that an allowance might be banked before it is forfeited. While establishing a time limit for the retention of allowances ensures emissions actually occur, it also accounts for "paper emissions". As for placing a limitation on location of trading, a GHG program will likely consist of six different regulated constituents originating from areas where the constituent concentrations vary. First, parties should only be allowed to trade like constituents - CO_2 for CO_2, not CO_2 for NO_2. Second, a party should be limited to buying like constituents only from geographical areas that have equal or greater emission levels than that of the purchasing party. Third, trading should be monitored to curtail bursts of emissions purchases in particular areas where emission levels for the constituents are increasing rapidly. Temporary trading freezes might be used to curtail trading in "hot spots". [199]

Overall, Title IV has proven how successful market-based incentives environmental regulation can be when properly implemented and maintained. Moreover, there are additional reasons why a GHG program should incorporate aspects of Title IV. First, the power industry has become accustomed to operating under a cap-and-trade system and will easily adapt to like regulation under a GHG program. Second, the Title IV program produced results quickly: a 40 percent reduction in emissions with over a two percent growth in product.[200] Third, the Chicago Board of Trade Future Market already handles trading of emissions. Fourth, the continuous monitoring system has already been developed for Title IV and can be modified for a GHG program. Finally, almost all of the data needed to establish the maximum cap, allowance scheme, and trading scheme already exists because of annual GHG emission inven-

---

[199] *See generally* Byron Swift, *Allowance Trading and SOx Hot Spots – Good News from the Acid Rain Program*, 31 ENVTL. L. REP. 954 (2000). A hot spot is an area suffering from high levels of localized pollution. *Id.*

[200] *See supra* note 146, at 237.

tories. Thus, a similar market-based incentives approach for GHG regulation would undoubtedly prove equally successful.

2. RECLAIM as a Template for Regulating GHGs

While the Title IV program was largely successful in reducing emissions, the RECLAIM program is a sharp contrast. Since its inception, the RECLAIM program has failed miserably to lower NOx and SOx emissions. During the period of 1994 to 1996, while the projected pollution reductions were at thirty percent for NOx, the actual reductions were ten percent of the projected reductions: a mere three percent reduction in NOx emissions.[201] NOx reductions prior to the inception of RECLAIM were actually greater. In fact, over the four-year period between 1989 and 1993, the LA Basin experienced a 37 percent reduction in NOx emissions.[202]

Some of the reasons for RECLAIM's failure include fabricated paper reductions through industry overestimations, the creation of pollution hot spots, and outright fraud and manipulation of emissions reporting.[203] The problems with RECLAIM were evident from its inception. When introduced, many of the regulated industries previously underestimating their emissions began to overestimate their emissions to ensure that they had an emissions cushion. As a result, industries were able to emit beyond levels previously allowed. Therefore, even though RECLAIM recorded "reductions," they were merely paper reductions.[204]

While SCAQMD's RECLAIM program exemplifies an unsuccessful market-based incentives program, not all market-based incentives approaches should be discounted.[205] By thoroughly reviewing RECLAIM's failures, an entity interested in

---

[201] Richard T. Drury, *Pollution Trading and Environmental Injustice: Los Angeles' Failed Experiments in Air Quality* Policy, 9 DUKE ENVTL. L. & POL'Y F. 231, 275 (1999). *See also Lethal Lessons*, *supra* note 154.

[202] Drury, *supra* note 201, at 265.

[203] *See, e.g., Lethal Lessons*, *supra* note 158.

[204] Drury, *supra* note 201, at 233 (referencing paper reduction as "phantom").

[205] *See generally* CorpWatch: *Smoke and Mirrors – Will Global Pollution Trading Save the Climate or Promote Injustice and Fraud?* by Michael Belliveau (Oct. 1998), *available at* http://www.igc.org/trac/feature/climate/pollution/belliveau.html (visited Jan. 6, 2002).

developing a market-based incentives program for GHGs will avoid similar mistakes. For instance, a market-based incentives program for GHGs could benefit from RECLAIM's mistakes by ensuring that it incorporates a method by which industry reporting of emission productions is incapable of overestimation. This could be accomplished by comparing the values reported to a baseline that uses a greater number of production years. This could also be accomplished by having the regulating entity conduct "random" spot inventory inspections, thereby assessing heavy civil and criminal liability for inaccurate reporting. Ideally, random spot inventories would serve as an incentive to estimate emission productions more accurately and would at the least reduce gross abuse of the reporting system.

The creation of pollution hot spots is another RECLAIM failure worth avoiding.[206] This unfortunate phenomenon could be avoided by placing trading freezes in areas where inordinate amounts of emissions are purchased in short periods of time. For example, if an emission source needs to purchase allowances, but the area where the source is located is experiencing high levels of allowance purchases, the source would be restricted from purchasing any additional allowances. A source confronting such a situation would have two choices: emit and face a stiff penalty for non-compliance or reduce emissions. If the non-compliance penalty were set at a level to severely discourage non-compliance, the source would reduce emissions.

Any GHG program premised on market-based incentives and created in the wake of RECLAIM should develop a more responsive system to avoid emission reporting fraud and manipulation. A few ways to avoid this problem include raising non-compliance penalties, developing a networked emissions reporting device that allows for spot-checking, and establishing random full-scale intensive emission production evaluations. Non-compliance penalty amounts could be set according to the severity of the emission reporting error. The compliance penalties should allot greater penalties and liability for purposeful,

---

[206] However, the issue of a pollution hot spot may not even be a concern for a GHG program because the levels of emissions needed to have the potential to adversely affect human health or the environment may not even be reached. Additional data is needed to determine if a GHG emission hot spot is even possible.

excess emission production. A spot-check system should further be developed to allow networking between the regulated entity and the emission sources. Under this network, the emission sources could only transmit emission data, whereas the regulating entity would have access to spot check emission data and make comparisons to determine whether to conduct a site visit. The third possibility for controlling fraud and manipulation would simply be to notify the emission sources that they always run the risk of being subject to a random spot inspection. This spot inspection would consist of a site visit where a full-blown emissions production evaluation would be performed. The evaluation would entail the sampling of emission production to determine the actual emission production of the sources along with an examination of the sources' processes. The process evaluations are necessary to determine which, if any, process modifications have occurred and whether those modifications were accounted for when reporting emission production.

By examining the inadequacies of the program and implementing the alternatives listed above, RECLAIM will be an invaluable tool for the creation of a new market-based incentives GHG program. Through the careful considerations of the program's shortcomings, improved monitoring mechanisms will be developed, stricter compliance and enforcement mechanisms will be established, and trading restrictions will be enforced. These improvements to SCAQMD's RECLAIM program will serve as important and powerful tools in developing and implementing an effective GHG reduction and limitation program.

C. MARKET-BASED INCENTIVES: THEORY

Turning from the analyses of the existing emission reduction programs and their suitability to regulate GHGs, it is important to determine whether a GHG program premised on market-based incentives is appropriate. Proponents of market-based incentives programs consider the approach to be more than merely a cost-effective way to meet environmental regulations; proponents believe the approach spurs innovative technologies to prevent pollution while increasing industry efficiency. Opponents of market-based incentives, however, firmly

contend they do exactly the opposite.[207] According to scholar David Driesen, a market-based incentives program stifles innovation by using a "cheap fix."[208] The "cheap fix" Driesen complains of is the purchase of emission allowances in lieu of investing that same money in new technology.[209] Even if a company decides to use Driesen's "cheap fix" approach, however, allowances are not infinite. Eventually, allowances will run out and all companies will have no choice but to reduce emissions. Companies are aware of the consequences of abusing a market-based incentives program, as shown through the success of EPA's Title IV program. An overwhelming majority of companies regulated under Title IV implemented process changes, refined the use of raw materials, and developed new pollution control technology.[210]

Another point of contention with the market-based incentives approach to environmental regulation is public exclusion from the industrial pollution decision-making process.[211] Some opponents focus on the potential for a non-consenting member of the public to endure increased pollution because a company chooses to purchase allowances rather than reduce emissions.[212] While the public might not have choices regarding increased pollution, this problem is certainly not unique to market-based incentives. Technology-based limitations in traditional command and control regulation also have the potential to result in increased pollution. The only difference with technology-based limitations is that increased pollution is a result of a permit variance, a violation, or grandfather clause, rather than at the discretion of industry.

In addition, market-based incentives regulations often increase the public's participation in the regulatory process. As pointed out by proponents Bruce Ackerman and Richard Stewart, market-based incentives regulation requires an overall pollution maximum (a cap) that forces the public to consider the

---

[207] *See generally, e.g.*, Lisa Heinzerling, *Selling Pollution, Forcing Democracy*, 14 STAN. ENVTL. L.J. 300 (1995).

[208] David M. Driesen, *Free Lunch or Cheap Fix: The Emission Trading Idea and the Climate Change Convention*, 26 B.C. ENVTL. AFF. L. REV. 1, 18 (1998).

[209] *Id.*

[210] *See supra* note 193, at 10331 (footnotes 23-28).

[211] Drury, *supra* note 201, at 278.

[212] *See generally* Heinzerling, *supra* note 207.

valuation of environmental protection.[213] Furthermore, in an effective market-based incentives regulatory scheme, the public can directly impact pollution levels of pollution by purchasing emissions and retiring them. This direct participation in purchase and retirement of emission allowances is a feature unique to market-based incentives regulatory schemes. Short of filing a lawsuit, the traditional command and control approach to environmental regulation does not offer such a powerful tool for the public to directly impact industrial pollution. Moreover, the typical lobby influences implicit to the command and control rule-making process, issuance of permits, and requests for variances are eliminated.[214] Improper influence cannot adversely affect the ability of a company to comply with an established pollution cap. At least in this respect, a market-based incentives regulatory scheme is superior to the traditional command and control technology-based regulatory schemes.[215]

Because market-based incentives programs give involved parties choices as to how to implement the emissions reductions and limitations, compliance is often much less expensive than mandates under command and control regulations. Well-designed market-based incentives programs reward people and companies that grow in an efficient manner. In the end, the market-based incentives meet both economic and environmental needs.[216]

While market-based incentives may be an effective alternative to the traditional command and control approach to environmental regulation, if improperly implemented and maintained, they will fail to reduce pollution.[217] If poorly designed and ineffectively implemented and maintained, the program will also fail to spur innovation and may well lead to increased pollution and corruption. Therefore, a market-based incentives

---

[213] Bruce A. Ackerman & Richard B. Stewart, *Reforming Environmental Law: The Democratic Case for Market Incentives*, 13 COLUM. J. ENVTL. L. 171, 189 (1988).

[214] Cass R. Sunstein, *Administrative Substance*, 41 DUKE L.J. 607, 636 (1991)

[215] *See generally* Cass R. Sunstein, *Administrative Substance*, 41 DUKE L.J. 607, 636 (1991).

[216] *100 Ways*, *supra* note 159.

[217] *See generally* Drury, *supra* note 201.

approach can successfully reduce pollution only if the program is properly implemented and maintained.[218]

Successful market-based incentives approaches must effectively address program design, implementation, enforcement, and accurate monitoring.[219] Potential pitfalls include inflated baseline emission levels, low credit prices, paper emission reductions, manipulation, and outright fraud.[220] For these reasons, existing environmental regulatory programs developed under a market-based incentives approach have been both successful and unsuccessful. As previously discussed, the EPA's CAA Title IV for Acid Rain was successful for these reasons whereas California's SCAQMD's RECLAIM was not.

In spite of anticipated criticism from opponents, a market-based incentives program is the most appropriate approach to the domestic regulation of GHG emissions. The sources of GHGs are primarily industrial and industry tends to respond more favorably to monetary incentives and efficiency. As such, a market-based incentives program would drive industries to become more environmentally efficient through a monetary incentive. Under this type of program, domestic GHG emissions would inevitably stabilize. Stabilization is the first step towards permanent GHG emissions reductions.

V. PROPOSAL

Despite the Untied States' unwillingness to ratify the Kyoto Protocol as written, the United States is nonetheless equipped to respond to global warming. Under a domestic GHG emission reduction and limitation program, the perceived unfair treatment of industrialized countries in complying with GHG regulation would be irrelevant. In addition, by basing the GHG program on market-based incentives, the potentially adverse economic impact on the United States could be dramatically reduced.[221] Furthermore, since the United States is cur-

---

[218] *See, e.g., supra* note 199.

[219] CRS Report for Congress 98-563: *Air Quality and Emission Trading: An Overview of Current Issues* by David M. Bearden (Aug. 16, 1999), *available at* http://www.cnie.org /NLE/CRSreports/Air/air-27.cfm (visited on Jan. 2, 2002).

[220] *See generally* Drury, *supra* note 201.

[221] *Cf.* Bush Position, *supra* note 1, at 12-13. The report states that the "Kyoto Protocol fails to establish long term goals based on science, poses serious and unnecessary

rently responsible for over twenty percent of the world's GHG emissions, a domestic program regulating GHG emissions would undoubtedly reduce the alarming rate at which global warming is occurring.[222]

Considering EPA's NAAQS is likely inappropriate for regulating domestic GHGs, a new program is necessary. The EPA's Title IV and California's RECLAIM programs were also developed when existing, traditional command and control regulation was either an unsuccessful or an inappropriate means to achieve regulatory compliance.[223] The following is a proposed national GHG emission reduction and limitation program, modeled on Title IV and RECLAIM and premised on market-based incentives.

A. GREENHOUSE GAS EMISSION CONTROL INITIATIVE

A number of factors can influence the effectiveness of a market-based incentives approach to environmental regulation, especially when attempting to fashion an effective GHG emission program from the cap-and-trade approach of market-based incentives. The three primary criteria, however, include pollution ownership, pollution valuation, and pollution control flexibility. First, an "owner" of the emissions must be determined.[224] The owner should be the party with the most direct control over the generation of the emissions. Second, it is essential to develop a mechanism to allow the owner of the emissions to buy and sell emissions as the party would any other property. [225] Third, the owner should have enough flexibility and authority over its emissions to determine how best to reduce or eliminate them.[226] The government's role in this process should be minimal as owners of the emissions have the

---

risks to the US and world economies and is ineffective in addressing climate change because it excludes major parts of the world." *Id.*

[222] *See* United Nations Framework Convention on Climate Change: Press Kit – The Hague 2000, *available at* http://www. unfccc.int.html (last modified June 21, 2001). The Unites States has experienced an 11.2% increase in Carbon Dioxide emissions between 1990 and 1998. *Id. Cf.* Bush Position, *supra* note 1, at 31.

[223] *See generally, e.g.*, Swift, *supra* note 123.

[224] *100 Ways*, *supra* note 159.

[225] *Id.*

[226] *Id.*

most knowledge of their particular process for emission reduction purposes.[227]

Once the initial criteria have been adequately defined, the next step is to establish the fundamental aspects of the program. The fundamental aspects of the GHG Emission Control Initiative include the location of the emissions and owners, the quantity of allowable emissions, the necessary compliance and enforcement requirements, and the market incentives. Specifically, the program design will hinge on defining the geographic areas to regulate, identifying an emission cap, allowing emission trading, determining a compliance regime, and establishing non-compliance penalties.[228]

1. The Program Criteria

a. Establishing Ownership of Pollution

To establish who owns the pollution, it is imperative to look at the sources of the GHG emissions. A number of categories of sources within the United States are responsible for producing GHG emissions. The easiest sources to identify, based on current data, are the industrial sources. Industrial source categories already exist and are used to compile annual United States GHG emission reports and other air pollution regulation data.[229]

The next step is to identify the individual producers of GHG emissions within a given source category.[230] Using the chemical industry as an example, this program should rely on facility specific process flow designs produced by process engineers for production purposes. These process flow designs could identify whether GHG emissions were produced through the source's process. After a positive determination as to GHG emission production, the facility would be identified as a GHG

---

[227] *Id.*

[228] *See supra* note 219.

[229] *See generally* National Technology Information Service Web Site Home Page, *at* http://www.ntis.gov (visited Feb. 24, 2002). Industrial Source Categories are referred to as Standard Industry Classification ("SIC") codes. *Id.* SICs are promulgated by the National Technical Information Service. *Id.*

[230] *Id.*

emission source. Following this identification, the facility would be designated as a GHG owner.

Understanding that the chemical industry is not the only known source category for GHGs, the other identified GHG source categories would need to undergo a similar evaluation process. As for the appropriate party to oversee the evaluation process, there are a few choices. The federal government, through an overseeing regulatory agency such as the EPA, could employ and train individuals to properly assess various process flows. This would likely be extremely expensive and federal employees may be less equipped to make judgments regarding the emission of GHGs than those technical individuals in the particular fields within the specific facilities.

Another option is for the federal government to hire experts from the field to complete the evaluations. While this method would reduce training-associated costs and likely produce more technically sound evaluations, the overall costs would be comparable with, if not higher than, hiring and training government employees. Contracting experts could result in substantial expenses because the government would have to pay an expert for his or her skills. Additionally, depending on the experts' particular industrial or political alignment, contracting field experts might not provide unbiased evaluation results.[231]

An equally effective and less expensive method of source identification is allowing the source to make the determination. Technical employees of the particular field in a specific facility, such as a facility process engineer or a plant design engineer, would be able to identify its facility as a GHG owner in a more efficient manner than those discussed above. Obviously, this solution, while cost effective, raises concerns that a facility may misrepresent its status with regard to self-identification as a GHG owner. To alleviate such a concern, a regulatory agency simply imposes civil and/or criminal liability on an owner for fraud or misrepresentation.

Industrial sources are not the only sources of GHG emissions. It is extremely difficult, however, to adequately identify

---

[231] A way to counter the potential for bias in the completion of the evaluations is to impose significant civil and criminal liabilities for misrepresentation.

non-industrial sources of GHG emissions and their actual emission levels. Moreover, industrial sources are currently responsible for a majority of GHG emissions, making a regulatory scheme that limits and reduces industrial GHG emissions most appropriate and most effective.

b. Associating a Value with the Pollution

After identifying industrial sources of GHGs and establishing GHG ownership, the program must assign a monetary value to the emissions in order to give the owners an incentive to comply with the program. Since the emissions are reported numerically for the annual GHG emission reports, assigning a monetary value based upon a quantitative reporting volume is most appropriate. The cost association should not be too cumbersome, but should still be high enough to be effective.

Because other market-based incentives programs have settled on a dollar amount for a specific quantity of emissions, the GHG program could easily build from the other programs' valuation of a specific quantity of emissions.[232] In keeping, the quantity of emissions should be set at a "per ton" value by the agency overseeing the program.[233] The value for a ton of GHG emissions must be such that the GHG owner realizes the value of what they "own". To accomplish this, the GHG program should establish a per-ton monetary incentive in both the form of a reward and a punishment.

The overseeing agency will need to set up the trading program to establish reward and punishment incentives. A system similar to the CAA's Title IV trading program would work wonderfully here.[234] The Chicago Board of Trade could easily serve as a trading ground for the monetary value of a GHG emissions ton.

---

[232] Clean Air Act, Title IV, §409, 42 U.S.C. §7651j (2001). Under the CAA's Title IV Acid Rain Program, regulated entities found in non-compliance are assessed a $2,000 fine for each ton. *Id.*

[233] In order to establish a monetary value for a ton of GHG emissions, sufficient research must be completed to ensure that the value is not too low and not too high.

[234] *Supra* note 232.

c. Flexibility in Pollution Control

Allowing the GHG owner flexibility in how to comply with the program's cap is also an important aspect of ensuring the success of the program. Again, the source is probably the most equipped in determining various methods to meet the maximum cap set by the program. These facilities employ individuals that possess technological expertise. Design engineers, process engineers, and many others are capable of developing technology to reduce their facility's production of GHG emissions.

While the technology required to reduce emissions may not currently exist, implementation of this program would facilitate technological advances. In addition, industry is already aware of the issue of global warming through the emergence of global warming science and the United States' involvement in the development of the Kyoto Protocol.[235] Many industries have begun to explore methods by which to reduce the production of various GHGs.[236]

One method to help facilitate the initial development of clean technology in various industry source categories would be to sponsor workshops and seminars.[237] These workshops and

---

[235] *See, e.g.,* Planet Ark News Search Results – World Environment News: *US Energy Companies Propose Carbon Dioxide Emissions Caps* (December 7, 2001), *available at* http://www.planetark.org/avantgo/dailynewsstory.cfm?newsid=11519 (visited Jan. 2, 2002). (Statement by PSEG Power President Frank Cassidy at a US Senate hearing on Tuesday, Dec. 4, 2001). Mr. Cassidy stated, "Members of our coalition share the view that the scientific evidence on climate change has progressed to the point where prudent action on reducing greenhouse gas emissions is warranted. *Id.*

[236] S2300-02, *supra* note 4 (statement by Sen. Kerry). Sen. Kerry stated "Fortunately, more and more companies are stepping forward to solve this problem and lead the way where government won't. BP will reduce its emission to ten percent below its 1990 levels by 2010. Polaroid will cut its emissions to twenty percent below 1994 levels by 2005. Johnson & Johnson will reduce its emissions to seven percent below 1990 levels by 2010. IBM will cut emissions by four percent each year till 2004 based on 1994 emissions. And, Shell International, DuPont, Suncor Energy Inc., Ontario Power Generation have all made similar commitments." *Id. See also Taking the Heat – Why Bush is Right on Kyoto – Treaty or Not, US Needs to Curb Greenhouse Gas*, NEWSDAY, Jul. 29, 2001 at Currents and Books: Cover editorial (explaining that Major corporations such as Shell, BP and DuPont have entered into agreements with the Environmental Defense organization to reduce emissions). Major automakers here and abroad are also contemplating reducing emissions, not out of great concern for global warming, but because it will eventually make operations more efficient and ease their dealings with European governments. *Id.*

[237] Relying on seminars and workshops as one method to facilitate innovative tech-

seminars would be held at various locations throughout the nation and would be industrial source category specific. The focus should be on the engineering aspects of improving processes to reduce GHG emissions.

Workshops and seminars would facilitate the interaction of a number of highly qualified experts in their respective fields, whereby they could discuss various experimental methods for reducing GHG emissions. Moreover, the forging of important partnerships would occur, resulting in research and development for new technologies to reduce GHG emissions in specific industrial processes. In addition to the innovation that would occur at such seminars and workshops, agency personnel would also be educated in the various industrial processes while forming closer relationships with those very industries, thereby furthering the cooperation necessary for achieving GHG emission reduction and limitation.

2. The Program Design

a. Establishing the Geographic Area of Regulation

For a truly effective domestic GHG emission reduction and limitation program that can slow the global warming trend, the program must regulate GHGs throughout the entire nation. EPA's prior experience overseeing other national air programs will be beneficial in the implementation of regulations for the GHG Emission Control Initiative.

Dividing the country into different categorical areas is necessary to ensure that the GHG program is effective and efficient. This division is necessary because GHG production in certain areas of the country is greater than in other areas of the country. Moreover, because there are existing emission categories for air pollutants under NAAQS, the GHG emission categories could easily merge into the existing system.[238] As-

---

nology to reduce and limit GHG emissions would require some funding from the agency overseeing the program. Such funding should be made available because the initial agency investment in such workshops and seminars would be invaluable as it relates to environmental compliance with a domestic program to reduce and limit GHG emissions.

[238] *See generally* Untied States Environmental Protection Agency Office of Air Quality Planning and Standards: Nonattainment Areas for Criteria Pollutants, *available at*

suming, however, that the GHG Emission Control Initiative opts to establish three divisions instead of the five divisions outlined in NAAQS, they could simply be "minimal", "moderate," and "extreme".[239] Each of these divisions would be specific to each individual GHG.

The emission division categories will assist in determining if a trading freeze is necessary to avoid creating a GHG emission hot spot in a particular area. Additionally, special designations should be applied to GHG emissions within areas deemed to encompass important ecological sites, such as national parks. The special designation would simply serve as a "marker" for regulatory agencies to acknowledge that a GHG emission source is located within an environmentally sensitive area.

b. Identifying an Emissions Cap

The development of a baseline is necessary to identify an emissions cap for the GHG Emission Control Initiative. The United States already has information regarding the national domestic production of GHG emissions. That data helped establish the enumerated GHG emission reduction and limitation commitments found in the Kyoto Protocol.[240] Since compilation of the data is complete, utilization of that same data would be cost effective and efficient. The information compiled for and submitted to the FCCC on April 11, 2000 considered the years 1990 through 1998.[241] Reliance on an eight-year period of time is adequate to establish a baseline. Moreover, if the United

---

http://www.epa.gov/oar/ oaqps/greenbk/o3co.html (last modified Mar. 6, 2002) (listing the various types of designated classifications for criteria pollutants).

[239] An area of the country identified as "minimal" would be an area of the country where, in relation with the rest of the country, contributes only a small amount of GHG emissions. A "moderate" area would be a part of the country that contributes an average amount of GHG emissions to the atmosphere as compared the rest of the country. The "extreme" designated areas would be those parts of the county responsible for the greatest volume of GHG emissions.

[240] Kyoto, *supra* note 61.

[241] *See generally* United Nations Framework Convention on Climate Change: Emissions Data, *available at* http://www.unfccc.int/resource/ghg/statrep2000.html (visited Jan. 2, 2002) [hereinafter Emissions Data]. *See also* United Nations Framework Convention on Climate Change: United States Emission Data, *available at* http://www.unfccc.int/resource/ghg/statrep00/usa00.pdf (visited Jan. 2, 2002) [hereinafter United States Emission Data].

States uses the same scientific formulas and scientific data the rest of the international community is using under the Kyoto Protocol, it will face less criticism for opting out of the international amendment.

By taking the average emission production for each GHG over the eight-year period, a maximum cap could be established. Although the values have fluctuated over the eight years, they have not differed drastically from year to year.[242] As a result, industry would have time to adjust while establishing some actual reduction in GHG emissions. While the initial maximum cap for each GHG would be based on the eight-year period, it should not be the final cap. Ideally, subsequent caps will be for a period of ten years, but no longer than fifteen years. By the end of that ten-year period, the maximum cap for each GHG should be equal to the lowest total value reported for each GHG over the initial 8-year period. The final cap should be rigid and unchanging. 5-year periodic reviews conducted by the overseeing regulatory agency would allow for modification to the final cap under specific circumstances.

c. Determining a Compliance Regime

For the GHG Emission Control Initiative to be successful, compliance with both the 8-year max and the final cap is imperative. To establish an effective compliance regime, the program will need a continuous monitoring program. The monitoring program must be capable of identifying non-compliant industries. Furthermore, to ensure an effective compliance regime, non-compliant industries will incur stiff civil and/or criminal liability for non-compliance.

Monitoring GHG emissions, as seen in many industrial settings, is not easy to accomplish and many of the numbers gathered originate from estimates or projections.[243] Although models are available to project the production of emissions of various constituents, the projections do not reflect the actual

---

[242] Emissions Data, *supra* note 241.

[243] *See generally* Untied States Environmental Protection Agency Office of Air Quality Planning and Standards: Air Quality Monitoring, *available at* http://www.epa.gov/oar/oaqps/modeling.html (last modified Sept. 6, 2001) (listing the various types of models for air quality purposes).

emissions entering the atmosphere. One way to effectuate actual continuous monitoring is to set up a sampling program. Sampling for actual air constituent emissions is time consuming and expensive, but ultimately necessary to ensure that the GHG program is actually meeting its goal.

The EPA has a number of approved methods for conducting air emission sampling for monitoring purposes.[244] Using one of these methods for guidance, a similar EPA-approved method could apply to GHG emission monitoring. A uniform sampling method would be required. The data obtained through sampling would further require transmission to a data collection center for GHG emission compilation. The data collection center would automatically post GHG emissions, which would connect directly to the trading mechanism for establishing the value of the GHG emissions. Depending on the reported emissions, the value for a ton of GHG emissions would change accordingly.

While a data collection center would store the sampling results for overall compilation, individual sources would maintain their own tallies. Between the two systems established for storing data, the GHG owners would receive notification when they were close to reaching their established GHG emission cap for the year. Notification would occur three times: first, when the GHG owner was at its 75 percent GHG emission point, next when the GHG owner was at its 90 percent GHG emission point, and finally when the GHG owner reaches its emission cap. Upon notification that the GHG owner has reached its 100 percent emission point, the owner would be issued an administrative compliance order instructing the owner that it could purchase available GHG emission rights from other GHG owners or incur a fine for each ton of GHGs emitted in excess of its total emission right. To establish the fine amount, the overseeing agency would rely on adequate data related to the economical value of emission rights. The value outlined in Title IV – a penalty of $2000 for each ton emitted beyond that authorized – would be both appropriate and adequate.[245]

---

[244] *See generally, e.g.*, 40 C.F.R. Pt. 61, App. E (1989) (National Emission Standards for Hazardous Air Pollutants – Compliance Procedure Methods).

[245] *See supra* note 234.

In addition to receiving a fine for exceeding the established GHG emission cap for the year, the GHG owner would receive further penalties. The following year, the GHG owner would lose its right to emit the amount of tons emitted beyond its emission cap that the owner failed to purchase from another GHG owner.[246] Realizing that failure to purchase emissions rights or remain within its emission limits will result in the loss of the right to emit in the future will ideally motivate compliance.

d. Emission Trading

Once the emission cap is in place for each GHG, the overseeing regulatory agency will distribute an initial number of emission allowances to the existing regulated GHG emission sources. The initial number of allowances distributed should be sufficient to ensure a viable market for trading. However, the allowances should not be so extensive as to allow the GHG emissions sources to simply hold them without making process modifications, closing facilities, or instituting new pollution control technology to achieve compliance with the cap.

After establishing the proper number of initial allowances for the existing GHG sources, the regulatory agency will oversee emission purchases by new GHG emission sources. With a maximum cap in place and the emission allowances issued to existing sources, new sources must purchase GHG emission allowances from existing sources. Placing this limitation on new sources will force industry to develop methods to reduce GHG emissions if a new GHG emission source in that same industry is to be built. In limited circumstances, a new source should be able to petition the overseeing agency for allowances based upon its industrial process design. If a new industrial source has developed a novel method to limit GHG emission production through their process, the overseeing regulatory agency may, at its discretion, grant "experimental" emission allowances to this source. Removing the number of "experimental" allowances for allocation from the accumulated noncompliance allowances could facilitate this. Recall that a GHG

---

[246] *See supra* note 136 (a similar plan was used here).

emission source that violates its emission limit loses its right to emit the number of tons of GHGs it was unable to purchase from the market.[247] Obviously, a grant of experimental allowances will not occur until non-compliance allowances accumulate through enforcement actions.

In addition to a new source's ability to purchase allowances or receive experimental allowances, all GHG emission sources should have the ability to bank allowances for future use. Nonetheless, the overseeing regulatory agency should impose a five-year limit on the length of time available to bank the allowances before a source would forfeit them. A five-year period is appropriate because it would coincide with five-year permitting and emission review cycles.[248] While establishing a five-year limit on banking encourages trading and emission production, the emission reductions would be more accurate because they would be actual, rather than paper, reductions. Additionally, with the eventual lowering of the GHG emission cap and the retirement of allowances, forcing the sale or forfeiture of allowances after a five-year period would not increase overall GHG emission production.

Another way to lower GHG emission production through trading is to allow non-industrial sources to purchase allowances for retirement. For instance, an environmental group could purchase GHG emission allowances through the market. Once the group purchased the allowances and "retired" them, the allowances would never return to the market. By establishing a discount rate for the purchase of GHG emissions by non-industrial entities, the program would facilitate GHG emission retirement. However, monitoring of the number of discounted allowances offered annually for direct retirement is important. Making five percent of the overall allowances available for retirement would be appropriate for the first five years of the program. Thereafter, the overseeing regulatory agency would review and revise the percentage of emissions available

---

[247] *See supra* note 136. *See also supra* note 246 accompanying text.

[248] *See generally* Untied States Environmental Protection Agency Office of Air Quality Planning and Standards: Title V Operating Permits, *available at* http://www.epa.gov/oar/oaqps/permits.html (last modified Aug. 3, 2001) (general explanation of a Title V operating permit). *See also* Clean Air Act Title V, §502, 42 U.S.C. §7661a(b)(5)(B) (2001) (permits shall not be issued for more than a five-year period).

for retirement as necessary to ensure that the market stays viable.

Additionally, under certain circumstances, the overseeing regulatory agency should invoke freezes on trading to ensure market viability as well as emissions stabilization and reduction. By monitoring the purchasing and selling of emission allowances to certain geographical areas, the overseeing regulatory agency will significantly limit, or possibly eliminate, the growth of GHG emission hot spots. By freezing the sale of allowances to a particular industrial area, GHG emission sources will have to modify production or face non-compliance penalties. In hot spots, non-compliance penalties should be more severe to encourage industry to modify production over incurring non-compliance penalties.

VI. CONCLUSION

The Kyoto Protocol was proposed to meet the FCCC objective of stabilizing GHG concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the global climate. While the United States has decided not to move forward with the ratification and implementation of the Kyoto Protocol, a domestic GHG regulatory program that relies on market-based incentives would be an effective tool to address climate change issues at a domestic level. Considering the current political platform for environmental issues in the United States, a market-based incentives approach to GHG reduction and limitation may actually provide a successful compromise between industrial and environmental concerns. Implementing a program such as the GHG Emission Control Initiative would help to slow the global warming process. Ideally, the program would have lasting technological effects on industry, perhaps as significant as the development of the catalytic converter was to car manufacturing.

Furthermore, implementing a domestic GHG emission reduction and limitation program, such as the GHG Emission Control Initiative, would help re-establish the United States as a contentious player in innovative environmental reform initiatives. As the rest of the international community moves forward with the implementation of the Kyoto Protocol, the United States is likely to experience various forms of interna-

tional social and economic backlash for failing to participate. The international backlash could be reduced, if not eliminated, by the adoption of a domestic program that would meet the objectives of the FCCC.

Denee A. DiLuigi[*]

---

* J.D. Candidate: Environmental Law Certificate and Litigation Certificate Candidate, 2003, Golden Gate University School of Law, San Francisco, California; B.S., Marine Biology, 1997, Texas A&M University, Galveston, Texas. My most sincere appreciation goes out to my Journal Editor, Hedy Bower, for all of her support, assistance and guidance during this endeavor. A special thanks goes out to my faculty advisors for their input, guidance and suggestions. I cannot even begin to express my heart-felt appreciation to my family and friends for their constant support – I consider myself unbelievably lucky to have all of you in my life – thank you so much!

VII. APPENDIX: KYOTO PROTOCOL RATIFICATION STATUS[249]

COUNTRY	SIGNATURE	RATIFICATION OR ACCESSION	REMARKS
ANTIGUA & BARBUDA	03/16/98	11/03/98 (R)	
ARGENTINA	03/16/98	09/28/01 (R)	
AUSTRALIA*	04/29/98		
AUSTRIA*	04/29/98	05/31/02 (R)	
AZERBAIJAN	-----	09/28/00 (Ac)	
BAHAMAS	-----	04/09/99 (Ac)	
BANGLADESH	-----	10/22/01 (Ac)	
BARBADOS	-----	08/07/00 (Ac)	
BELGIUM*	04/29/98		
BENIN	-----	02/25/02 (Ac)	
BOLIVIA	07/09/98	11/30/99 (R)	
BRAZIL	04/29/98		
BULGARIA*	09/18/98		
BURUNDI	-----	10/18/01 (Ac)	
CANADA*	04/29/98		
CHILE	06/17/98		
CHINA	05/29/98		
COLUMBIA	-----	11/30/01 (Ac)	
COOK ISLANDS	09/16/98	08/27/01 (R)	(4)
COSTA RICA	04/27/98		
CROATIA*	03/11/99		
CUBA	03/15/99	04/30/02 (R)	
CZECH REPUBLIC*	11/23/98	11/15/01 (Ap)	
CYPRUS	-----	07/16/99 (Ac)	
DENMARK*	04/29/98		
DOMINICAN REPUBLIC	-----	02/12/02 (Ac)	
ECUADOR	01/15/99	01/13/00 (R)	
EGYPT	03/15/99		
EL SALVADOR	06/08/98	11/30/98 (R)	
EQUATORIAL GUINEA	-----	08/16/00 (Ac)	
ESTONIA*	12/03/98		
EUROPEAN COMMUNITY*	04/29/98	05/31/02 (Ap)	(1)
FIGI	09/17/98	09/17/98 (R)	
FINLAND*	04/29/98	05/31/02 (R)	
FRANCE*	04/29/98	05/31/02 (Ap)	(2)
GAMBIA	-----	06/01/01 (Ac)	
GEORGIA	-----	06/16/99 (Ac)	
GERMANY*	04/29/98	05/31/02 (R)	
GREECE*	04/29/98	05/31/02 (R)	
GUATEMALA	07/10/98	10/05/99 (R)	
GUINEA	-----	09/07/00 (Ac)	
HONDURAS	02/25/99	07/19/00 (R)	

[249] *See* United Nations Framework Convention on Climate Change: Kyoto Protocol Ratification Status, *available at* http://unfccc.int/resource/kpstats.pdf (last updated June 4, 2002).

COUNTRY	SIGNATURE	RATIFICATION OR ACCESSION	REMARKS
INDONESIA	07/13/98		
IRELAND*	04/29/98	05/31/02 (R)	(3)
ISRAEL	12/16/98		
ITALY*	04/29/98	05/31/02 (R)	
JAMAICA	-----	06/28/99 (Ac)	
ITALY*	04/29/98	05/31/02 (R)	
JAMAICA	-----	06/28/99 (Ac)	
JAPAN*	04/28/98	06/04/02 (At)	
KAZAKHSTAN	03/12/99		
KIRIBATI	-----	09/07/00 (Ac)	(6)
LATVIA*	12/14/98		
LESOTHO	-----	09/06/00 (Ac)	
LIECHTENSTEIN*	06/29/98		
LITHUANIA*	09/21/98		
LUXEMBOURG*	04/29/98	05/31/02 (R)	
MALAWI	-----	01/26/01 (Ac)	
MALAYSIA	03/12/99		
MALDIVES	03/16/98	12/30/98 (R)	
MALI	01/27/99	03/28/02 (R)	
MALTA	04/17/98	11/11/01 (R)	
MARSHALL ISLANDS	03/17/98		
MAURITIUS	-----	05/09/01	
MEXICO	06/09/98	09/07/00 (R)	
MICRONESIA (STATES)	03/17/98	06/21/99 (R)	
MONACO*	04/29/98		
MONGOLIA	-----	12/15/99 (Ac)	
MOROCCO	-----	01/25/02 (Ac)	
NAURU	-----	08/16/01 (R)	
NETHERLANDS*	04/29/98	05/31/02 (Ac)	
NEW ZEALAND*	05/22/98		
NICARAGUA	07/07/98	11/18/99 (R)	
NIGER	10/23/98		
NIUE	12/08/98	05/06/99 (R)	(5)
NORWAY*	04/29/98	05/30/02 (R)	
PALAU	-----	12/10/00 (Ac)	
PANAMA	06/08/98	03/05/99 (R)	
PAPUA NEW GUINEA	03/02/99	03/28/02 (R)	
PARAGUAY	08/25/98	08/27/99 (R)	
PERU	11/13/98		
PHILIPPINES	04/15/98		
POLAND*	07/15/98		
PORTUGAL*	04/29/98	05/31/02 (Ap)	
REPUBLIC OF KOREA	09/25/98		
ROMANIA*	01/05/99	03/19/01 (R)	
RUSSIAN FEDERATION*	03/11/99		
SAINT LUCIA	03/16/98		
SAINT VINCENT AND THE GRENADINES	03/19/98		
SAMOA	03/16/98	11/27/00 (R)	
SENEGAL	-----	07/20/01 (Ac)	
SEYCHELLES	03/20/98		
SLOVAKIA*	02/26/99	05/31/02 (R)	
SLOVENIA*	10/21/98		

COUNTRY	SIGNATURE	RATIFICATION OR ACCESSION	REMARKS
SOLOMON ISLANDS	09/29/98		
SPAIN*	04/29/98	05/31/02 (R)	
SWEDEN*	04/29/98	05/31/02 (R)	
SWITZERLAND*	03/16/98		
THAILAND	02/02/99		
TRINIDAD AND TOBAGO	01/07/99	01/28/99 (R)	
TURKMENISTAN	09/28/98	01/11/00 (R)	
TUVALU	11/16/98	11/16/98 (R)	
UKRAINE*	03/15/99		
UNITED KINGDOM AND IRELAND*	04/29/98	05/31/02 (R)	
UNITED STATES*	11/12/98		
URUGUAY	07/29/98	02/05/01 (R)	
UZBEKISTAN	12/0398		
VANUATU	11/20/98	10/12/99 (Ac)	
VIET NAM	-----	07/17/01 (Ac)	
ZAMBIA	08/05/98		
TOTALS	**84**	**74**	

Notes: R = Ratification; At = Acceptance; Ap = Approval; Ac = Accession
* Represents an Annex 1 Party

(1)European Community: "The European Community and its Member States will fulfill their respective commitments under Article 3, paragraph 1, of the Protocol jointly in accordance with the provisions of Article 4."
(2)France: "The French Republic reserves the right, in ratifying the Kyoto Protocol to the United Nations Framework Convention on Climate Change, to exclude its Overseas Territories from the scope of the Protocol."
(3)Ireland: "The European Community and the member States, including Ireland, will fulfill their respective commitments under Article 3, paragraph 1, of the Protocol in accordance with the provisions of Article 4."
(4)Cook Islands: "The Government of the Cook Islands declares its understanding that signature and subsequent ratification of the Kyoto Protocol shall in no way constitute a renunciation of any rights under international law concerning State responsibility for the adverse effects of the climate change and that no provision in the Protocol can be interpreted as derogating from principles of general international law. In this regard, the Government of the Cook Islands further declares that, in light of the best available scientific information and assessment on climate change and its impacts, it considers the emissions reduction obligation in Article 3 of the Kyoto Protocol to be inadequate to prevent dangerous anthropogenic interference with the climate system".
(5)Niue: "The Government of Niue declares its understanding that ratification of the Kyoto Protocol shall in no way constitute a renunciation of any rights under international law concerning state responsibility for the adverse effects of climate change and that no provisions in the Protocol can be interpreted as derogating from the principles of general international law. In this regard, the Government of Niue further declares that, in light of the best available scientific information and assessment of climate change and im-

pacts, it considers the emissions reduction obligations in Article 3 of the Kyoto Protocol to be inadequate to prevent dangerous anthropogenic interference with the climate system".

(6)Kiribati: "The Government of the Republic of Kiribati declares its understanding that accession to the Kyoto Protocol shall in no way constitute a renunciation of any rights under international law concerning State responsibility for the adverse effects of the climate change and that no provision in the Protocol can be interpreted as derogating from principles of general international law."